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**Joint Project of**

Conference of State Court Administrators and the
National Association for Court Management Joint
Technology Committee

# For Consideration by COSCA & NACM Boards
## as Recommended Standards

# February 26, 2003

# Standards for
# Electronic Filing Processes
## (Technical and Business Approaches)

**The NATIONAL CONSORTIUM FOR STATE COURT AUTOMATION STANDARDS**

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# Standards for Electronic Filing Processes
## (Technical and Business Approaches)
For Consideration by the COSCA & NACM Boards
as Recommended Standards
February 26, 2003

## Prepared by the
## Electronic Filing Standards Subcommittee
## Of the National Consortium for
## State Court Automation Standards

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# Executive Summary

In 2002, the technical hurdles for transmitting a document to the courthouse and using it effectively in an electronic-only version are minimal.   The explosion of the Internet as the universally accepted medium for exchanging information has made it possible to design electronic filing systems that allow private computers to "talk" to court servers.  Ever lower costs of personal and small business computers and network access have brought the Internet within the reach of most citizens.  Increasing levels of computer literacy among judges and court staff, lawyers and their staff, and the public mean that the required social infrastructure for routine electronic filing already exists.  For more and more court users, sending an electronic legal pleading would be no more challenging than dashing off an e-mail message to a family member or making an on-line airline reservation.

The time for broad scale implementation of electronic filing has arrived.  For that to happen, the judiciary needs a set of carefully crafted standards to help courts and developers make the move towards electronic filing less daunting and costly.  Early adopters of electronic filing systems had to work through all of the policy and operational issues for themselves.  The availability of national standards will eliminate that time and effort.  Standards will also define common technology and policy approaches to ensure that, as new systems are put in place, they will be able to interoperate as a single nationwide network.  Filers will be able to use a single interface to connect electronically with multiple courts in the same and in different states.   For courts, the most important benefit of a common technology approach will be the decreased cost of developing or purchasing applications.  Common systems – with reusable applications and components – ultimately will mean lower costs for both purchase and long-term maintenance.

These _**Standards for Electronic Filing** **Processes (Technical and Business Approaches)**_ will serve those purposes.  They contain guidance for court policies and rules, a conceptual model of a common technological approach, and functional standards for courts and vendors to follow in designing and building automated applications to support electronic filing. They are intended to provide a common model for state and federal trial and appellate court electronic filing processes in order to achieve six purposes:

- to endorse a "full service" model of electronic filing including not only the transmission of electronic documents into the courts, but also the routine use of electronic documents and the electronic record for case processing, for service on other parties, and for access and use by everyone involved in, or interested in, the case;

- to endorse an electronic filing process containing maximum incentives for use and acceptance by courts and lawyers, so as to increase the success rate of electronic filing projects;

- to provide a "road map" for vendors to use when developing their electronic filing, case management, and document management products;

- to provide guidance to court systems that wish to move into electronic filing but have hesitated to do so because they lack experience or expertise;

- to encourage all state and federal trial and appellate courts and administrative law tribunals to make the most complete transition possible from paper to electronic records through the implementation of electronic filing; and

- to establish the standards needed to ensure that electronic filing applications developed by the federal courts, state court systems and individual courts have the capacity to integrate into a national electronic filing network – so that lawyers and citizens can file and access documents in courts throughout the country using the same basic technological approach and encounter consistent functionality, with compatible protocols and rules.

These standards have been commissioned by the Conference of State Court Administrators and National Association for Court Management. Once adopted as national standards, the Conference of Chief Justices will oversee their implementation according to the terms of its August 2001 resolution on automation standards.

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# Statement of Purpose and Scope

## The Promise of Electronic Filing in the Courts

In a period of increasingly tight budgets and ever expanding caseloads, courts across the country have looked at the concept of "electronic filing" as a way to reduce the considerable demands of handling physical case files and to reduce the long term costs of storing official documents.   In theory, filing pleadings and other court papers electronically will finally make it possible to move towards the ideal of a "less paper" courthouse, thus realizing a wide range of potential spin-off benefits for litigants, judges, lawyers, court administrators, and the general public.

The idea that a court can operate electronically is nothing new.  Quite a few courts have successfully implemented electronic records processes that use imaging technology to "scan" paper documents and convert them to electronic files that are stored in sophisticated document management systems   But the effort and expense needed to scan each and every new filing is not trivial.  Clerks are still required to key the document's type, case number, and other vital information into the court's computerized case management system, a task that is essentially unchanged from the traditional paper document world.

"Electronic filing", on the other hand, saves the court the cost of converting most documents from paper to electronic form by taking advantage of the fact that lawyers and other court users create most documents filed in courts using their own computers.  It is wasteful to have these pleadings and other legal papers converted to paper merely to be reconverted to images when they ultimately reach the courthouse.  The drawbacks of image files – the inability to extract information contained within them, the relatively large size of their files on a computer, and the resulting slower response time for calling them up for viewing or transmitting them from place to place -- are avoided as well.

Ultimately, electronic filing will achieve the following improvements in the justice system:

- Speedier processes by eliminating the time required for mailing or personal delivery of pleadings and other documents

- Greater  efficiency from  the instantaneous, simultaneous access to filed court documents for participants in the case, for judges and court staff, and members of the public (to publicly available court documents) wherever participants may be located throughout the world

- Fewer delays caused by lost or misplaced paper files

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- Increased efficiency and reduced cost from the ultimate reduction or elimination of handling and storing paper case files in courts, lawyers' offices, and official archives

- Increased security of court records arising from more reliable electronic backup copies of records, increased ability to detect any alteration to an electronic document, and easier enforcement of limitations on access to documents

- Improved legal processes, as judges and lawyers learn to take advantage of the universal availability and ease of sharing of electronic documents

- Enhanced public safety arising from electronic service of and instantaneous access to court orders (including domestic violence orders of protection) and warrants

## Background and Purpose

The first large scale use of electronic filing to receive, record and view court documents in electronic form was the CLAD system begun in 1985 in Delaware. Since then, literally hundreds of subsequent implementations (both as demonstration projects and permanent installations) have followed in federal and state courts, the majority emerging in the last three years. They have ranged from projects designed only for a single case type in a single court to statewide systems intended eventually to cover filings in all cases in all general jurisdiction courts. Early pioneers in the development of electronic filing, the federal courts are now beginning the national implementation of a Case Management/Electronic Court Files (CM/ECF) system. As of March 2002, the CM/ECF system is already operational in half of the nation's bankruptcy courts, several dozen federal district courts, and two pilot federal courts of appeals. Unlike in the federal judiciary, however, there exists no centralized authority for implementing electronic filing at the state court level. Each state, and very often each individual local court, explores, develops or rejects the idea of electronic filing as it sees fit and as resources permit.

> **Comment:** update with Rick

Various business models have been used for electronic filing projects over the years and they differ in a number of distinct respects. Some systems have been created virtually from scratch by the court itself while others have been developed and operated on a fee-for-service basis by private sector service providers. Some implementations focus solely upon the filing of documents with the court with minimal integration with the court's case management system; others are far more comprehensive and essentially result in reengineering the way judges, court staff, lawyers, and litigants work with each other.

Some systems are limited to filing documents in an already existing case following an order by a judge or an agreement among the parties, while others allow for electronic

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case initiation with electronic filing of original complaints and petitions. Some make participation in the electronic filing process mandatory though most allow individual litigants the ability to opt-in or opt-out as they desire. Some systems have been designed from the very start to ensure that litigants incur no additional costs for filing their documents electronically (other than the costs of office computers and Internet access). Other courts attempt to recover the costs of implementation through additional charges for each page filed or viewed. Still others are based on agreements with private sector service providers to develop and install systems with users paying a fee for each transaction.

In sum, the range of approaches attests to the fact that until recently electronic filing has remained an experimental technology. Enough electronic filing systems have developed and flourished for there to now exist a body of experience and knowledge that can translate into guidelines to help courts and vendors avoid costly and time consuming mistakes.

Electronic filing is still limited to a tiny fraction of the nation's state court systems. Many courts are reluctant to be on the "bleeding edge" of new technology. Some wait in the hopes that some sort of best practice standards will emerge. Others are unsure about the breadth of changes needed in traditional processes to reap the promised benefits of electronic filing. Vendors are reluctant to invest the considerable expense and effort needed to design court-specific electronic filing applications in the face of dwindling government budgets.

In 2002, the technical hurdles for transmitting a document to the courthouse and using it effectively in an electronic-only version are minimal. The explosion of the Internet as the universally accepted medium for exchanging information has made it possible to design electronic filing systems that allow private computers to "talk" to court servers. Ever lower costs of personal and small business computers and network access have brought the Internet within the reach of most citizens. Increasing levels of computer literacy among judges and court staff, lawyers and their staff, and the public mean that the required social infrastructure for routine electronic filing already exists. For more and more court users, sending an electronic legal pleading would be no more challenging than dashing off an e-mail message to a family member or making an on-line airline reservation.

The time for broad scale implementation of electronic filing has arrived. For that to happen, the judiciary needs a set of carefully crafted standards to help courts and developers make the move towards electronic filing less daunting and costly. Early adopters of electronic filing systems had to work through all of the policy and operational issues for themselves. The availability of national standards will eliminate that time and effort. Standards will also define common technology and policy approaches to ensure that, as new systems are put in place, they will be able to interoperate as a single nationwide network. Filers will be able to use a single interface to connect electronically with multiple courts in the same and in different states. For courts, the most important benefit of a common technology approach will be the decreased cost of developing or

purchasing applications.  Common systems – with reusable applications and components – ultimately will mean lower costs for both purchase and long-term maintenance.

These ***Standards for Electronic Filing Processes (Technical and Business Approaches)*** are intended to provide a common model for state and federal trial and appellate court electronic filing processes in order to achieve six purposes:

- to endorse a "full service" model of electronic filing including not only the transmission of electronic documents into the courts, but also the routine use of electronic documents and the electronic record for case processing, for service on other parties, and for access and use by everyone involved in, or interested in, the case;

- to endorse an electronic filing process containing maximum incentives for use and acceptance by courts and lawyers, so as to increase the success rate of electronic filing projects;

- to provide a "road map" for vendors to use when developing their electronic filing, case management, and document management products;

- to provide guidance to court systems that wish to move into electronic filing but have hesitated to do so because they lack experience or expertise;

- to encourage all state and federal trial and appellate courts and administrative law tribunals to make the most complete transition possible from paper to electronic records through the implementation of electronic filing; and

- to establish the standards needed to ensure that electronic filing applications developed by the federal courts, state court systems and individual courts have the capacity to integrate into a national electronic filing network – so that lawyers and citizens can file and access documents in courts throughout the country using the same basic technological approach and encounter consistent functionality, with compatible protocols and rules.

These standards have been drafted for consideration by the National Consortium for State Court Automation Standards, a subcommittee of the Joint Technology Committee of the Conference of State Court Administrators (COSCA) and the National Association for Court Management (NACM).  They will ultimately be presented to those two organizations for adoption as national automation standards.  Implementation of those

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standards is the subject of an August 2001 resolution of the Conference of Chief Justices (CCJ), which provides that state courts of last resort or judicial councils with oversight responsibility for courts within a state will promulgate rules or administrative orders requiring all courts within their states to comply with applicable national communication protocols and standards when procuring or developing new electronic filing and information-sharing systems.[1]

Experience has shown that courts and lawyers implement electronic filing gradually and do not immediately realize the full benefits. A number of systems have failed due to a lack of interest or commitment on the part of users and administrators soon after a much publicized start-up. Ironically, the positive aspects of electronic filing are realized only as more and more lawyers and other court users participate in the process (thereby decreasing the number of documents that court staff must convert from paper to electronic) and as more and more courts institute such systems as a routine part of their operations. The end result of such growth and acceptance will be the evolution of electronic filing from a local court and media curiosity into a standard way of doing business among all members of the civil and criminal justice communities.

## Scope

The scope of these standards is:

- the creation of court documents intended for filing as electronic court documents,
- their transmission to a court,
- their review and acceptance by a court,
- their maintenance and use within the court and by users of court documents outside the court,
- the security and integrity of electronic court records, and
- the functions of court case management and document management systems needed to support electronic court records.

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[1] The wording of the CCJ resolution provides that courts of last resort or judicial councils with administrative oversight of state courts will:

When they have the power to do so, adopt rules or orders directing courts within the state:

a. to comply with applicable national communication protocols and standards when procuring or developing new electronic filing and information-sharing systems or when adding these functions to existing case management information systems;

b. to comply with applicable national standards when procuring or developing other new applications, unless there is compelling justification not to do so; and

c. to comply with, or migrate toward, applicable national standards when enhancing existing applications.

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These standards do not attempt to define all the functionality required for court case management or document management systems.  These standards do not address court policies for access to, or privacy of, electronic court records.

The standards are titled *Standards for Electronic Filing Processes (Technical and Business Approaches)* rather than "Standards for Electronic Filing" to avoid the unintended connotation associated with the term "electronic filing" that may be interpreted as referring only to the process by which documents are submitted to a court for filing. That is only one part of a mature, full blown electronic documents process.  Focusing only upon the initial filing aspect runs the risk of losing most of the potential benefits of electronic filing.  At the extreme, the failure to look at electronic filing as part of a much larger process can result in an expensive system that is of little utility to court users such as judges, lawyers, litigants, and court staff.  *Electronic Filing Processes* is also preferable to "Electronic Court Documents" which might apply simply to court imaging systems that create electronic documents by scanning paper filings.  "Electronic Court Documents" would also include standards for document management systems, which are not within the scope of these standards.  *Electronic Filing Processes* incorporate scanning of paper documents, but only as an ancillary process for capturing historical documents not created for the purpose of litigation and for converting paper documents submitted by parties incapable of using electronic filing means.  An *Electronic Filing Process* relies upon submission of the great bulk of documents in electronic form without requiring the routine use of paper at any step in the process.

The standards are designed to apply to federal and state appellate as well as trial courts and to courts of limited as well as general jurisdiction.  They are also applicable to administrative law tribunals.  References to courts and court staff include clerks of court, who in a number of states are separately elected public officials, and to their staffs.

The term *Electronic Filing Processes* incorporates not only application components for receiving and processing documents received in electronic form, but also the case management information systems and document management systems with which these applications interact.  However, these standards do not attempt to define functional or other standards for either case or document management systems for courts.   Nationally applicable functional standards for case management information systems have been established and are available at the National Center for State Courts Technology Standards web page (http://www.ncsc.dni.us/ncsc/ctp/htdocs/standards.htm).  They may also be accessed from a link at the National Center for State Courts home page at http://www.ncsconline.org

These standards are not limited to purely technical matters.  The parenthetical ***Technical and Business Approaches*** is appended to the title to alert readers that the standards also cover court business process changes needed or useful in supporting the receipt and use of electronic documents. The many electronic filing projects throughout the country have already produced many valuable lessons that courts planning such projects should follow; the policy standards and commentary accompanying them incorporate those experiences.  Ultimately, lawyers and other court users will benefit from

consistency in the court rules and policies governing electronic filing from jurisdiction to jurisdiction.

It is not the purpose of these standards to define everything at the technical level of specificity needed for a nationally interoperable electronic filing process. For example, while the standards call for the use of XML[2] as a universal format for structured documents and data to be part of the electronic transmission, they leave to other technical groups and approval processes the creation and maintenance of a detailed XML specification for this purpose. The drafters also acknowledge that the general conceptual model of the electronic filing process is not an articulated taxonomy; the further definition of a detailed universal architecture is beyond the scope of these standards. So also are the technical details of the data exchange processes themselves. They must be defined in a manner agreeable to all persons and entities operating electronic filing applications, but they cannot be defined within the time and resources available to this standards effort. Finally, these standards do not attempt to define measurable business objectives for electronic filing projects. Although the subcommittee encourages courts to set such objectives as a part of sound project management, experience is not yet sufficient to define national benchmarks for electronic filing project performance.

The Policy Standards are presented in the format of "black letter" standards and commentary. The "black letter" is the operative portion of the document. The commentary explains the "black letter," suggests best practices in its implementation, and sets forth any limitations or caveats to the universal application of the "black letter." The functional standards have a similar structure, with formal statements of functionality accompanied by non-binding commentary explaining the functional statements.

The standards for the most part express their requirements in general technical terms, rather than in terms of specific technical products currently available or in use today. Standards that avoid references to specific products will remain relevant as technology improves.

The standards often call for policies to be set forth in court rules. Articulating them through statutes or court decisions may be more appropriate in some jurisdictions. Full implementation of the standards will take a longer time in those jurisdictions where statutory authority is required than in those where policies can be set by court rule. Existing statutes in some states may prevent courts from adopting some of the policies set forth in the standards until or unless they are able to convince the other two branches of government to amend those statutes.

These standards do not address issues of public access to and privacy of electronic court documents. Those matters are covered in a report titled Public Access to Court Records: Guidelines for Policy Development by State Courts, developed by a Conference of Chief

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[2]XML is the eXtensible Markup Language developed by the World Wide Web Consortium. Information can be found at their website: http://www.w3c.org

Justices/Conference of State Court Administrators committee co-chaired by Chief Justice Linda Copple Trout of Idaho and State Court Administrator Sue Dosal of Minnesota.  The guidelines can be located at www.courtaccess.org/modelpolicy .

## Acknowledgements

The subcommittee responsible for drafting these standards acknowledges the generous contributions of many judges, court administrators, court automation staff members, attorneys, and private sector service providers who took the time to provide input on the various topics covered in these standards.  In particular, the *National Consortium for State Court Automation Standards* convened a *Joint Standards Development Committee* of knowledgeable court and vendor representatives to review and refine the functional standards contained in this document.  Their input was extremely helpful both to the reporters and to the members of the subcommittee.  The *National Center for State Courts* (NCSC) provided invaluable administrative support for the standards development process.  The *State Justice Institute* (SJI) provided funding to support the meetings of the committee and the work of the reporters.

# Organization of the Standards Document

These standards are comprised of three interconnected sections:

- A set of ***Policy Standards*** that include suggested rules and policies for courts to adopt in order to best achieve the goals of electronic filing processes.

- A general ***Conceptual Model*** of the electronic filing process to better explain the interrelationship of various entities and systems for successful operation, and

- ***Functional Standards*** that set forth the requirements for automated applications to achieve nationally interoperable electronic filing systems in courts.

Taken as a whole, the Policy Standards, Conceptual Model, and Functional Standards make up the proposed ***COSCA/NACM Standards for Electronic Filing Processes (Technical and Business Approaches)***. The scope and purpose for each are discussed in more detail below:

**Policy Standards.**  The *Policy Standards* are designated by letters following the section number of the Standards for Electronic Filing Processes (e.g., 1.1A).  They are in three sections:
- 1.1 General principles
- 1.2 Court Rules
- 1.3 Implementing Electronic Filing Systems

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In a number of instances the Policy Standard calls for courts to use some process (such as XML) or to follow some standard practice (such as articulating the terms and standards a court uses for receiving versus filing versus docketing electronically submitted filings).  The Functional Standard will then require that electronic filing applications contain the capability to implement that policy.  While neither the drafting subcommittee nor the two national sponsoring court organizations have the power to require compliance with these Policy Standards, the creation of a nationally interoperable electronic filing environment can only be realized if courts incorporate these principles into their own systems.  State courts of last resort or judicial councils do have the authority to require compliance.  States and courts failing to follow national standards such as these can expect to encounter strong objections from lawyers and other court users who expect uniform operating rules and principles for such systems.  The Policy Standards use the verb "will" (rather than "shall" or "must") to signify that failure to follow the policy set forth in the standard will result in an electronic filing process that fails to accomplish the six purposes and realize the full benefits articulated above.

**Conceptual Model.**  The *Conceptual Model* of the electronic filing process is intended to display and describe the basic components of a standard electronic filing process.  It is not intended to suggest any particular allocation of responsibility for implementation.  For instance, a court or private sector service provider may choose to incorporate multiple components within a single application.  A court may provide the Front End Application, and, therefore, be the Electronic Filing Service Provider (EFSP) for the electronic filing front end technology.  The model is not intended to suggest that a private sector third party is necessary for an electronic filing application, nor is it intended to suggest a preference for private vendor provided electronic filing systems over those provided by courts or court systems.

**Functional Standards.**  The *Functional Standards* are composed of a detailed description of each functional standard, the sub-functions included within each function, and definitions relevant to consideration of electronic filing.   The functionality standards identify both the essential and optional functions that an electronic filing application should contain, whether developed and operated by a court, a private sector service provider, or some other public entity.  The functional standards call for an electronic filing system that includes the following:

- Acceptance of filings from lawyers or parties in electronic form
- Acceptance of filings (such as orders and notices) from judges and court staff
- Acceptance of filing and other fees electronically
- Display of filed documents for lawyers, parties, judges, court staff, appellate courts and the public
- Storage and archiving of documents in electronic form

- Notice of filing of documents to parties and counsel participating electronically in the case
- Acceptance of draft orders for review by a judge and return to the drafter
- Security features to limit access to confidential documents

In addition to these three main sections, a glossary of terms is provided at the end of the document.  The Policy, Rule, Implementation, and Functional Standards without commentary are in an APPENDIX.

# SECTION 1 – POLICY STANDARDS

# 1     Policy Standards

## 1.1     General principles

### Standard 1.1A  Official Court Record

**The electronic document will be the official court record.
Paper records, if maintained, will be considered a copy of the
official court record.**

The very notion of an official court record requires the designation of a single instance of
a document as authoritative.  The core principle underlying the maintenance and use of
electronic court records is that the electronic document is the authoritative, official record
of what is recorded in it.  Whether implemented by statute or court rule, courts must make
the transition from treating paper documents as the official record to treating the
electronic documents as the official record.

Courts, lawyers and parties cannot rely on electronic documents unless they are
accorded official status.  Until the electronic document is the official court record, a
responsible attorney will routinely obtain the full paper copy of all documents and orders
from the court to ensure that he or she is relying on an authentic document.  As a result,
courts will be required to maintain duplicate paper and electronic records.  These steps
eliminate the very efficiencies sought from the use of electronic court documents.  The
ultimate objective of electronic filing processes is to eliminate the redundancy of paper
and electronic records – relying exclusively on electronic documents as the official court
record and using paper records only for the convenience of participants when electronic
documents are awkward to use.

Courts gain in both security and flexibility when the electronic record becomes the official
court record.  Duplicate copies of electronic documents can be easily and inexpensively
maintained for security.  Authenticity of an electronic document can be verified with
greater ease and certainty than authenticity of a paper record.  And electronic records
can be used simultaneously by multiple users in multiple locations, while a paper record
can be lost or misplaced and only used by one person at time.

Widespread adoption of this basic principle will not prevent judges and lawyers who
prefer to work with paper documents rather than documents on a computer screen from
making and using paper copies.  The functional standards ensure that paper copies can
be available to users within and outside the court.  Nor will it eliminate the use of certified
paper copies of an official court record.

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This principle facilitates electronic service and remote viewing of the court record. Designating the trial court's electronic document as the official court record allows all external viewers of that record to treat it as authoritative.  It is not necessary, however, for courts to provide routine public access to its official electronic record.  Some courts prefer for security reasons to limit access to its "production" data base, providing user access to a "mirror" or duplicate data base maintained for general access.  At least one court has entered into a contract with a private sector service provider to maintain such a database for purposes of access by the public.

### Standard 1.1B  Electronic Viewing

**Electronic filing processes will presume that all users will view documents on their computer screens.  Paper copies will be available on demand, but their production will be exceptional, not routine.**

A major objective of an electronic filing process is to maintain and provide documents to all users in electronic form.  To routinely convert documents back to paper for viewing purposes is to increase significantly, and unnecessarily, the costs of court operations – in the cost of paper and ink, in the cost of printers, in the time of court staff required to make copies, and in the cost of keeping copies for future use.

Many courts already require parties to submit electronic versions of their filings so that judges and staff can work with them on their computers.  Examples are appellate briefs and transcripts required by a court to be submitted on floppy disk or CD ROM.  Significant numbers of judges and lawyers are realizing the advantage of electronic documents arising from the ability to create automatic links between a reference to a case or document and the text of the case or document itself.  Such "CD ROM briefs" are allowed by the rules of many appellate courts and their filing is encouraged by judges, especially in complex and complicated matters.  Electronic filing processes make these practices universal.

There will be exceptions.  Some judges will find that their ability to absorb very long or complex documents on a computer screen is inferior to their ability to comprehend the printed word.  Judges are encouraged to develop their facility with computer based documents so as to reduce their demand for paper copies.

### Standard 1.1C  Technical Requirements

**Courts will use Internet browser, eXtensible Markup Language, web services[3] and World Wide Web Consortium recommended standards for electronic filing processes.**

While numerous technologies have been used in the course of electronic filing projects since 1985, the clear consensus today is a combination of Internet browser, XML, web services and World Wide Web Consortium (W3C) standards are the core technologies supporting electronic filing processes.  This standard is not intended to suggest that all court automated applications be "web-based" (i.e., that court personal computers or

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[3] "Web service" is defined in the Glossary in its generic sense – Software components that employ one or more of the following to perform distributed computing:  UDDI, WSDL, or SOAP.  The term is not used in this document to describe a specific architecture.

terminals access all operating programs through the Internet or through an Intranet); it merely intends that electronic documents be transmitted to the court, and accessed from the court, by means of an Internet browser.

Internet browsers are widely available to courts and court users.  The federal courts, all private sector service providers and most recent court electronic filing installations use the Internet and Internet browsers both to send and to view electronic documents.  Court electronic filing applications should function satisfactorily on all major browsers, not just on a single browser.

XML (eXtensible Markup Language) is the currently accepted standard for describing the content of data transmitted electronically.  XML is a mark up language used for defining the content of data transmitted electronically.  It is widely used by private industry and is becoming the standard for government sector data transfers as well.  The technical standards underlying the use of XML are defined by the W3C (http://www.w3.org/#technologies). They are universally accepted.

The W3C has not, as of the drafting of these standards, recommended standards for "web services."  These standards, therefore, do not use the term to apply to specific standards, but rather in a broader sense to refer to automated means to access application functionality through the use of Internet technology.  This entails the ability of a computer to learn, automatically, what protocols are needed to access an application on another computer.  Courts should use standard Internet technology, e.g., SOAP (Simple Object Access Protocol), service registries and repositories, and other such standards-based capabilities as they mature.

The four principles in this standard have as their foundation two larger principles to which courts should adhere in developing electronic filing systems:

- Systems should be "platform independent."  For instance, systems should be just as useable by persons with Apple Macintosh computers as by persons using personal computers with Microsoft Windows operating systems.
- Systems should use or support – to the extent possible – applications based on open, nationally-accepted standards rather than on proprietary solutions.  When no such open standards exist, courts should – again, to the extent possible -- ensure support for multiple products rather than a single proprietary product.  Being tied to a single proprietary product increases costs to users by eliminating competition and introduces risk to the court's application by making a court dependent on the continuing viability and future success of a single vendor's product.

XML uses "tags" to describe data.  In XML, the data contained between the beginning tag <lastName> and the end tag </lastName> is identified for a computer as a person's last name.  XML facilitates the transmission of data from any application, data base or operating system to any other application, data base or operating system.  Even though

disparate systems cannot communicate directly with each other, one can output its data in an XML format and the other can convert the XML data into the input format and data structure required for its application.

XML is not a proprietary format. It has been developed as an open standard usable by anyone without cost. It is machine-readable. A number of XML tools are readily available on the market. Because XML is a non-proprietary, machine-readable format that promotes the exchange of data among different systems, it promotes interoperability and thus is well-suited for use in electronic filing processes.

For any business group, including the legal community, to be able to use XML productively, its members must agree on a common set of tag names, definitions, and basic operating rules. Without such a common "dictionary," XML will not function because XML can only operate successfully when everyone using it for a particular purpose use the same tags, in the same way. The World Wide Web Consortium has recognized two forms of specifications for conveying such "definitional" understandings:

- Document Type Definition (or DTD)
- Schema (the more recently approved standard with greater capability to define the content of data fields)

For an industry to make use of XML, then, its components must all agree on a DTD or Schema setting forth the data element tags and their relationships to each other.

**Relevant History**.   The court and legal communities have been developing XML specifications for the purpose of transmitting court filings since November 1999. Legal XML, a volunteer organization of court administrators, judges, court technology experts, lawyers, academics, and private sector service providers, developed the first Electronic Court Filing DTD (Version 1.0) in March 2000. Version 1.0 defines the "legal envelope" used to transport a document to a court and the data that will accompany the document. It allows for the transmitted document to be in any format. It was approved as a draft standard by the COSCA/NACM Joint Technology Committee on March 22, 2000. The specification has been widely used by courts and vendors for the past two years. In late 2001, the Georgia Courts Automation Commission conducted a successful demonstration of the ability of the Electronic Court Filing 1.0 DTD to pass documents and accompanying information among different courts and different vendors running different software applications.

In the fall of 2001 the US Department of Justice brought together three groups working on XML standards in the criminal justice arena to reconcile the data elements and XML development principles they were using so that all XML applications in the justice system could, some day, interoperate successfully. Legal XML has incorporated the results of that reconciliation process, and the lessons learned from early implementations of the 1.0 standard, into a 1.1 version of the Electronic Court Filing specification and DTD. The National Consortium for State Court Automation Standards and the COSCA/NACM Joint

Technology Committee adopted the Electronic Court Filing XML1.1 specification as a proposed standard in July 2002.

Legal XML has become a member section of the nation's best known data standards organization, the Organization for Advancement of Structured Information Standards (OASIS), where it will continue its successful partnership with the Conference of State Court Administrators and National Association for Court Management in the development of specifications for the use of XML for court electronic filing processes.

Although other areas of these *Standards for Electronic Filing Processes (Technical and Business Approaches)* avoid identifying and specifying particular technologies or products in order to avoid being rendered obsolete in short order, these requirements – use of Internet browser technology, web services and other W3C recommended standards, and XML – are durable technologies for at least the next five to ten years.

Because the courts have standards for the use of XML, and it is the only mechanism available to support interoperability of all court and vendor operated electronic filing processes, it is appropriate for adoption as a standard.

### Standard 1.1D  Document Format

> **Courts will require electronic documents to be submitted in a format that can be rendered with high fidelity to originals, and, when possible, is searchable and tagged.  Courts will only require formats for which software to read and write documents is available free for viewing and is available free or at a reasonable cost for writing and printing.**

"Rendered with high fidelity" means that the display of a filed document can be fixed. Anyone viewing the document will see it displayed exactly as intended by the filer. Portable document format (PDF) and TIFF provide this functionality today.  Although no current format guarantees "absolute" fidelity to the appearance of a document on the filer's screen, PDF and TIFF provide exceptionally high fidelity.
"Searchable" means that a software program can search the document and find the occurrence of specified words and phrases.  Image files are not searchable.

"Tagged" means that a document format contains XML and HTML tags.  Such tags are necessary for computers to make direct use of key pieces of information contained in a document.  Image files are not taggable.

The most difficult parts of this requirement today are searchability and taggability.  As noted, image files are not searchable or taggable.  However, for the time being, given current technology limitations, it will be necessary for courts to accept scanned images for historical documents not created for the purpose of litigation and for entry into an

electronic filing system of documents submitted on paper by persons lacking the capability to submit them electronically**.** See Standard 1.3D. A court system might want to consider setting both these requirements – searchability and taggability – to take effect in the future, such as two years from now. It should retain the option to accept scanned images of historical documents indefinitely.

The format in which documents are submitted is important for several reasons. First, an electronic filing process will generally support only limited document formats for ease of use by court and external users of the system. It is unwieldy for users to have to be able to read documents in different formats and hard to provide ongoing technical support for multiple format capabilities and multiple generations of software. Second, it is essential for courts to be able to maintain a document in the exact format in which the filer intended it to be viewed. Third, courts have an interest in ensuring that the formats they use are affordable for users, including self represented persons who often have very limited means.

Portable document format (PDF), supported by Adobe Acrobat™, is the de facto standard for electronic filing today. The Acrobat™ reader – which allows a user to view a PDF document – is available at no charge. The Acrobat™ writer – which allows a user to create a PDF document from standard word processing packages – is available at a modest price from any computer store. Courts should remain aware of the reality that no electronic document is completely safe from alteration by a malicious, determined, and highly knowledgeable hacker and technical security against write access to the court's storage of documents must be safeguarded through conventional security measures. Standard 1.1H therefore requires courts to take additional steps to ensure document integrity. A few courts use TIFF files instead of PDF, so that the court can add to or modify the text (for instance, to add a traditional file stamp in the upper right hand corner of the document [See the commentary to Standard 1.3F for alternatives to this practice]). The OASIS Technical Committee has approved a standard for an XML-based court document with internal "tags" – Court Document XML 1.1 specification, which uses a "stylesheet" to define exactly the format in which XML data will be displayed. Consequently, it is now possible to obtain the benefits of tagged documents for searching for data elements within them, while preserving the renderability of the documents in the form intended by the document creator.

### Standard 1.1E  Self-Contained Documents

**Each filed document will be self-contained, with links only to other documents submitted simultaneously or already in the court record.**

It is technically possible for courts to accept a link to a document in lieu of the document itself. The link would allow a viewer to see the document on a remote website maintained by the filer or a third party. However, this process appears on its face inconsistent with the court's obligation to serve as the custodian of the court's official records. A court clerk

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could not guarantee that a document on a remote website would continue to exist in the future, nor could the clerk submit or retain that document for archiving.

Likewise, a filed document could contain links to documents or references not included in the document.  Examples could be case law cited to a computer aided legal research service, official government records and standards maintained on a government website, or documents provided on a commercial website.  The standard prohibits such links.  Courts should not be subjected to costs associated with accessing legal research on a proprietary site.  Nor can courts ensure that the references to which a court document referred at the time the matter was decided would remain constant over time on a web site they do not control.  The court will not be required to access a document not contained in its official electronic record.

The standard is intended to allow parties to include links to documents submitted as attachments to a filing, to other documents already submitted in the case (and documents being submitted simultaneously), and to the official records of the trial court, including a transcript in electronic form.   It also allows the functionality currently contained in CD-ROM appellate briefs, where relevant portions of the trial court record and the full text of cited statutes and relevant judicial precedents are included with the brief, with links from their citation within the argument.

If secure, perpetual, trusted web site repositories were to come into existence in the future, they might serve as a basis for reconsidering the policy set forth in this standard.

### Standard 1.1F  Data Accompanying Submitted Documents

**Courts will require filers to transmit data identifying a submitted document, the filing party, and sufficient other information for the entry in the court's docket or register of actions.  In the case of a document initiating a new case, sufficient other information will be included to create a new case in the court's case management information system.  This data will be specified with particularity by the court.**

One of the prospective advantages of a sophisticated electronic filing process is that it avoids duplicative data entry by transferring the responsibility for entering data to record a filed document in the case management and document management systems from the court staff member receiving the filing to the staff of the person submitting the document for filing.  The filer has all of the needed information readily at hand.  Most of it is included in the document to be filed (e.g., case name and case number, filer name, and document title).

Some persons have envisioned an XML document with tags for all of the information needed to create a docket entry – in effect a document that will "file itself."  Experience to

date suggests that vision is not practical.  Too often a court requires information accompanying a filing that is not contained in the filing itself.  It is realistic to expect, however, that applications will be built for electronic filers that will extract the information needed to comply with this standard from a tagged XML filing, saving the lawyer or litigant the cost of redundant data entry.

One principle of an efficient automated system is to have the data entered once – by the person generating that data – rather than re-entered multiple times by multiple users.  The former ensures better data quality by clearly assigning the responsibility for data entry to the person with the greatest familiarity with the data to be entered.  In the case of electronic filing, that is the filer – usually the lawyer or law firm staff.

Electronic filing applications typically provide a great deal of guidance to the user in entering this data.  They usually contain a template with the required data fields defined.  For data that requires standardization – such as document title – applications usually provide a "drop down box" displaying the standard document titles (e.g., motion to compel discovery, motion for summary judgment, motion for extension of time).  This aids persons submitting documents to conform to a court's usages and conventions (such as requiring a motion for extension of time rather than a motion for continuance).  This court-specific data is included in the Court Filing Policy module and Court Data Configuration module shown and explained in the Conceptual Model of the electronic filing process.

Much more extensive information is required for a document that initiates a new case, such as a complaint, petition, information or indictment.  In today's paper environment, courts often require parties to file a "cover sheet" with such filings, to clearly identify needed information, to include information that may not be contained in the filing itself, and to reduce the workload on court staff.  A typical electronic filing process template for a new case filing is simply an on line "cover sheet."

This standard does not suggest that a court cedes responsibility for the accuracy and completeness of the data submitted by a filer under this standard.  Standard 1.3E addresses the court's quality control process.


### Standard 1.1G  Identity of the Sender

**Courts will use some means to identify persons interacting with its electronic filing system.**


The standard requires a court to use some means to determine who submitted a document for filing.   It will use some means for identifying anyone who seeks to obtain documents or information, except for requests for information to which it chooses to provide totally free and unmonitored public access.

In the current paper world, rarely does a court concern itself with this issue.  Documents come to the court through the mail, by courier, by fax, or in person.  For the most part, the court does not know – or care – who actually submitted the document to the court.  It relies on the name of the submitter included in the document, usually with a signature, to determine the identity of the filer.  In recent years, courts often require a filer to add a unique court-issued identifier, such as a bar number.  Likewise, most courts do not require identification of persons seeking to view a public court record.

In an electronic world, much greater precision is possible and desirable.   A court can know the address from which a message containing a document submitted for filing – or a request for access to court information -- originated.  A court should want to know this information with certainty for at least three reasons:

- First, the court can avoid future controversy whether the document's submission was authorized.

- Second, and far more important, the court can limit access to persons authorized in advance to use its system thereby reducing the likelihood of breaches of system security.
- Third, it can ensure that it does not provide access to sealed or otherwise restricted court information to persons who are not authorized to access it.

It is not yet clear what level of technology should be used to identify the filer.  This standard does not require the use of any particular approach.  In fact, some courts allow persons to "self identify;"  that is, the court does not require any form of advance registration, allowing a person to identify him or herself through an email address or other means at the time the person sends a document or message to the court.

The most commonly used approach in courts today is to identify filers by issuing them unique user IDs and passwords.  In some states such identifiers are issued by each local court.  In other states a central authority registers persons to participate in the electronic filing process and issues each user a unique identifier.  The clerk of the court of last resort is often the responsible individual.  It may be that a means will be developed for creating a national electronic filing user identifier; as lawyers practice in different electronic filing courts, they will appreciate being able to use the same code for submitting filings in all jurisdictions in which they practice.  A national identifier would address the growing numbers of lawyers obtaining permission to appear in a single case in a state in which they are not members of the bar (pro hac vice appearance).  The PACER system used by the federal courts for access to court case management system information includes a national registration number feature.

A drawback to pre-registration requirements is the creation of an additional barrier to self-represented litigants and unsophisticated users of court records.  The cost and inconvenience of having to register for access to an electronic filing system might be

sufficient to cause some persons not to pursue a claim or defense in a legal matter.  Free, simplified, on-line registration processes would reduce such barriers.   It might also be possible to allow a user to create a user name and password upon first interacting with the court system.  As noted above, some courts allow a filer to use an email address as his or her identifier.  The more informal the process, however, the less assurance the court will have that it has ascertained the true identity of the registering person.  Reducing barriers to access is addressed in Standard 1.1L.

The most advanced technology for this purpose is public/private key infrastructure (PKI) – a system that uses pairs of closely related numbers as public and private keys to a message.  The private key is used by the submitter as a unique identifier.  The public key is used by the recipient to identify the sender.  As noted in Standard 1.1H, digital certificates have an additional advantage; they combine the personal identification and document authentication functions in a single application.  The most common process for using PKI technology is a third party digital certificate authority that issues and verifies public and private keys.  This system is in use in Utah for its electronic filing system – one of the early systems developed.  It is easier to use digital certificates for large institutional filers, and for private sector service providers, than for individual litigants who represent themselves.  In the latter instances, the complexity and cost of digital certificates pose serious barriers to court access.  For those reasons, most courts have declined to use this approach.  However, there are other mechanisms for using PKI and digital certificates; one court uses software allowing it to issue its own digital certificates.

Some state electronic filing rules create a presumption that a document filed under a user ID issued by the court is filed by that user.  (See Use of Unique Identifier, Standard 1.2B).

Standard 1.1G merely requires courts to use some means of identifying the source of a document submitted electronically, without requiring one or another of these alternatives.  For detailed discussion of the tradeoffs associated with monitored and unmonitored public access to court records, see Public Access to Court Records: Guidelines for Policy Development by State Courts, www.courtaccess.org/modelpolicy.

### Standard 1.1H  Integrity of Transmitted and Filed Documents and Data

> **Courts will maintain the integrity of transmitted documents and data, and documents and data contained in official court files, by complying with current Federal Information Processing Standard 180.2 or its successor.**

In order to support Standard 1.1A making the electronic document the official court record, courts and private sector service providers supporting courts must take steps to guarantee the integrity of those electronic court records.  This standard requires the incorporation of a means for verifying electronically the content and format of filed

documents. It adopts an existing, inexpensive, widely used federal standard to accomplish this purpose. If these standards did not create a uniform means for ensuring the integrity of court electronic documents, some other process, such as a uniform state law or interstate compact, would have to do so.

Document integrity may be ensured at two stages in the process:

- First, the court can ensure that the document filed with the court is the same as the document sent by the filer – that it has not been corrupted during transmission. While it is true that courts have no parallel responsibility in the current paper world, corruption of a filing during transmission is a fear often expressed by lawyers; that fear can be addressed cheaply and effectively.

- Second, the court can guarantee that the document in the official record has not been modified after it has been entered into the court's data base.

This standard requires that courts perform the latter and recommends that they perform the former.

These standards reference the Federal Information Processing Standard (FIPS) 180.2, the Secure Hash Algorithm, for defining the means to ensure the integrity of court documents at both stages of the process. FIPS standards are developed and maintained by the National Institute of Standards and Technology; while the FIPS standards contain multiple processes for protecting electronic records, including encryption, the Secure Hash Algorithm satisfies the security needs for electronic court records. FIPS 180-2 sets the standard for using a mathematical algorithm to search a document and describe its contents with a "hash" consisting of a series of letters and numbers that uniquely describes the document. If the document were to be altered in any fashion in the future, the "hash" for the altered document would be different from that for the document originally transmitted or filed. The court's computer records the "hash" with the date and time the document was filed and returns it to the parties for their records. Because it is theoretically possible that a hacker could tamper with a hash record as well as with the document it represents, courts should secure their hash records and make sure that multiple copies of them are maintained by the court and the parties to ensure that the true original hash is maintained.

The FIPS 180-2 hash algorithm has been used by court electronic filing systems. It is inexpensive to install, operates automatically, and has proven reliable in operation.

A simple "byte count" of a document will not suffice. Courts and vendors must incorporate into their electronic filing processes the use of an algorithm or software application that creates a unique electronic description of the filed document and attaches

that description permanently to the filed document in the court's records. Such a description is often referred to as an "electronic file stamp." The software to calculate and record "hashes" is widely available and inexpensive; running and comparing hashes is a fully automated process, requiring no actions by court staff in individual cases.

The standard is not intended to suggest that the electronic hash created in compliance with FIPS 180.2 creates "self-certifying" court records. The standard anticipates the continuation of traditional processes for creating certified copies of court records

An even more secure method for guaranteeing the authenticity of filings is to encrypt them for submission to the court. This is a feature of many digital certificate processes. As described in the previous section, a digital signature enables the sender and the court to guarantee the identity of the sender. Many such systems also contain encryption capabilities. The document is converted by the sender's computer into an unintelligible string of letters and numbers. When this string is received in the court, the court uses its key not only to identify the sender but to decode the message – in our case the document and data accompanying it. While this level of security is available, it is not used in the courts today (outside of Utah) because of its expense and complexity. It would be possible for a court to encrypt its official files – giving only authorized users access to the software needed to display the documents in their decoded form. However, this process would effectively bar the public from viewing any court documents.

Signatures have been the means in a paper world both for determining the identity of the filer and ensuring the authenticity of the filing. The signature serves a number of purposes: it formally marks the signer's acceptance of the document as the signer's statement, it formally identifies the submitter, it serves as a mark that can be verified by scientific handwriting analysts if the authenticity of the document is questioned, and it serves as the predicate for prosecution for perjury or other false swearing criminal offenses.

As described in the previous standard and this standard, the processes of identifying the sender and guaranteeing the integrity of court documents are handled in different ways in the electronic world. It is not yet clear what role, if any, a traditional signature will play in a world of electronic documents. In particular, it is not clear whether an electronic submission of a document without a traditional signature will support a criminal prosecution for perjury or other false swearing offenses.

The Federal Rules of Civil Procedure have been amended in recent years to assign less significance to a "signature." Rule 11 of the federal rules, and state counterparts, used to condition the various standards for attorney conduct articulated in the rule on a lawyer's "signing" of a pleading. That rule has been amended to make those standards dependent upon "submission" of a document to a court for filing, not upon the lawyer's signature.

For courts wishing to continue to require signatures on documents, there are a variety of ways to accommodate them in an electronic environment.

- Most courts have adopted rules defining use of a password and ID as equivalent to signing a document;
- Digital certificates are often used as signatures in electronic commerce; they are used as signatures in Utah.
- Court-generated digital certificates are possible.
- Some courts use a graphical representation of a signature – both for lawyers and judges. A scanner is used to transform a written signature into a graphic; the graphic is then inserted into the electronic document;
- As noted in the commentary to Standard 1.3A, some courts have required lawyers to retain copies of documents containing original signatures in their files for viewing and authentication if needed.

### Standard 1.1I   Electronic Acceptance of Payments

**Courts will establish a means to accept payments of fees, fines, surcharges and other financial obligations electronically, including the processing of applications to waive fees.**

Courts must establish a means for accepting electronic payments of fees associated with filings. Otherwise an electronic filing process will require as a practical matter that court users must physically go to the court to conduct financial transactions associated with some or all filings – undermining one of the incentives for using an electronic filing process. Some courts have refused, in their electronic filing experimental programs, to accept filings that have associated filing fees. Others have limited their programs to cases that do not entail fees, such as criminal and juvenile cases. However, the "full blown" electronic filing process model encouraged by these standards includes all filings in all case types. Inclusion of a universally applicable electronic fee collection mechanism is therefore a requirement of an electronic filing process.

The standards support four current methods for accepting payments associated with filings:

- use of credit card payments, with credit card numbers being transmitted to the court together with authorization to charge fees to that account;

- direct electronic funds transfer;

- requiring an electronic filing vendor to make all fee payments associated with filings through its system, with the vendor to obtain reimbursement from its client or from an intervening vendor; and

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- maintenance of an account at the clerk's office from which fees are debited as filings are received.

Credit and debit card payments are the most universally available form of payment. Secure credit card payment processes are widely available through the Internet. All courts should support payment through this mechanism, so that there will be at least one common payment mechanism available nationally. Courts not now accepting credit card payments will need to obtain authority to add any credit card transaction fees to filing or other fees, or to pay such transaction fees from fee collections.

Direct electronic funds transfer is an alternative payment method often used in electronic commerce. Payment is made through a clearinghouse process. Courts should explore the use of this mechanism, as it is likely to become the most used method for payment mechanisms with frequent customers.

Some courts have required their electronic filing vendor to pay all fees associated with filings coming to the court electronically. The vendor is then responsible for obtaining reimbursement from its clients and maintaining all books and records needed for this purpose. The primary vendor for the court must pay the filing fee to the court and collect from another vendor who may be providing services to a law firm. That vendor must then collect from its client. As electronic filing grows into a nationally interoperable system, these transactions will become ever more complex and costly. Private sector service providers should carefully weigh these potential costs before agreeing to such arrangements into the indefinite future. In the instances where this is allowed by courts, courts should carefully define the reporting from the electronic filing vendor that they will need to ensure accuracy and consistency of financial transactions.

Courts may choose to maintain an escrow account for frequent customers. The customer deposits several thousand dollars with the court for the purpose of making future fee payments. The court establishes an account for that customer, debits fees incurred by the customer, provides the customer with regular reports of transactions in the account, and notifies the customer of the need to replenish the account when it reaches a predetermined level. This payment method imposes much larger transaction costs on court staff and is not practical for customers who conduct infrequent business with the court. It is therefore only a supplementary fee collection mechanism and cannot suffice by itself for collection of fees associated with electronic filing.

A complete electronic filing process must also support a fully electronic process for filing an application to waive filing fees and court consideration of such an application in an expeditious manner. Such electronic processes can replicate existing paper processes where a filing is held temporarily pending judicial action on a fee waiver application. The filing is accepted if the application is granted and is rejected (or held pending submission of the required fee) if the application is denied.

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### Standard 1.1J  Surcharges for Electronic Filing

**Courts should avoid surcharges for filing of or access to electronic documents if they are able to obtain public funding of their electronic filing processes.  Courts may impose such surcharges or use a private vendor that imposes surcharges when public funding is not available.  Such surcharges should be limited to recouping the marginal costs of supporting electronic filing processes if collected by the court or to a reasonable level if imposed by a private vendor.**

Imposition of surcharges for electronic filing is a complicated issue.  These standards favor free electronic filing processes.  However they also recognize the practical realities of limited public revenues available for support of these processes and the valuable contribution of private sector service providers willing to make the capital investment needed to implement such processes in return for a future revenue stream from transaction-based fees.

Electronic filing processes create both public and private benefits.  Persons viewing the benefits as primarily public favor free electronic filing processes.  Those viewing the benefits as primarily private favor charging fees for the private benefits conferred.  The standards take the view that the benefits are primarily public and therefore favor free electronic filing processes.

The costs of electronic filing processes are substantial.  In addition to the hardware and software required for such systems, which vary in cost with the size and complexity of the court they support, courts incur additional costs to integrate electronic filing processes with their case management information systems and major training and support obligations.  They may also incur heavy infrastructure improvement costs if their current systems are not state-of-the-art.

Hardware and software costs include the cost of developing, testing, and implementing electronic filing applications.  It is possible to obtain electronic filing software and the license to use it from a private vendor.  The more common business model for private vendors is that of installing and operating their own product in a court and in the law firms and agencies interacting with that court in return for negotiated fees charged for each filing and access transaction.  Fees are typically a minimum cost of several dollars per document, with additional per page costs for documents exceeding ten pages in length.  Because of the limitations of this business model, courts desiring to operate free electronic filing processes must develop or purchase their own applications.  The definition in these standards of functional requirements for electronic filing processes may lead additional vendors to offer electronic filing applications on a licensing basis -- substantially reducing the cost to courts of offering free, court-supported electronic filing processes.

Other costs arise from the need to create an application program interface with a court's case management and document management systems, from the need to create a process by which the public can gain access to electronic court records (which is relatively straightforward using Internet browser technology and access software products available on the market), and the possible need to upgrade court automation infrastructures. Electronic filing processes require a state-of-the-art telecommunications capability which is very expensive to purchase and implement. Increasingly, states are creating such capability on an enterprise-wide basis for all state government branches and agencies. Courts should take advantage of such statewide capabilities. Security features are now robust enough to address judicial branch confidentiality concerns in using such statewide systems. Courts must still pay attention to the sufficiency of statewide telecommunications systems to meet their specific requirements for communications volumes and speeds, security, and maintenance and support capabilities and priorities.

A final major cost factor for courts arises from the need to provide training and user support to attorneys, their staffs, and other electronic filing process users. Courts that provide their own electronic filing application learn quickly that they have taken on a very substantial user support obligation. They will be asked to train users, to provide ongoing operational directions to users, to troubleshoot users' problems with their systems (including failures of their Internet service providers), and to maintain sufficient court staff to support the hardware and software on which the system operates and to provide traditional support for court users of the application. Courts have found that this high cost of user support declines over time as users become more familiar with system operation, need less day-to-day handholding, and take on the responsibility for training their own staff in the use of the application. Private sector service providers typically provide user support as part of their service, removing this burden from court staff. Another possible source of user support for court-based electronic filing processes are state and local bar associations or private vendors certified by a court to provide support services to court users on a subscription basis (just as law firms pay for support of their internal automated systems).

Another financial implication of the implementation of an electronic filing process is the possible loss of fees associated with providing copies of court documents. Such fees are set at levels to recoup the costs of finding requested documents, removing them from paper files, making the requested copies, returning the papers to the files and re-shelving the files. Although the overall amounts of fees generated from making copies are modest, the funds established from this revenue source are often available for unrestricted uses – an important source of financial flexibility for courts. Therefore, court administrators and clerks of court may resist the implementation of electronic filing processes if they threaten copy revenues by allowing free download of electronic court records. If this objection is addressed by eliminating the capability to print or download documents, the court will be sacrificing a major advantage of electronic filing processes for a small amount of unrestricted revenue. Another approach would be to impose a fee for printing such documents from public access systems. Better approaches are to obtain additional appropriations to offset the loss of such funds or merely to forego such

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revenues in return for not having to do the work associated with making copies. Courts that have entered into contracts to bring a commercial copy service into the courthouse to provide copies at commercial prices have found that the tradeoff of copy fees revenues for the avoidance of the staff work associated with making copies is highly beneficial to the court.

While the private benefits of electronic filing processes are real, and market surveys and experimental projects demonstrate that many attorneys are willing to pay reasonable fees in recognition of them, the standards take the position that the greater benefits are those that accrue to the courts and the public. Experience shows that the imposition of fees serves as a disincentive for use of electronic filing processes by many attorneys and public agencies. The existence of fees for use of the service also creates pressure on courts to maintain electronic filing processes as voluntary additions to traditional paper filing processes, thereby postponing substantially the realization of the public benefits that will accrue when virtually all court filings are made in electronic form. Finally, fee based electronic filing processes impose substantial costs on public agency users of such systems. Some private sector service providers have agreed not to charge public agencies, or self-represented litigants, for the use of their systems. However, such terms are not universal and courts, legislatures and county commissions should be aware that other justice agencies may be forced to request large budget increases to enable them to use electronic filing if it is provided on a transactional fee basis. Courts also file documents that they generate, such as orders and notices; contracts with private sector service providers need to exempt court users from transactional fees or the courts will face higher costs from this perspective as well.

Consequently, for all of these reasons, the standards urge courts to make the case to their funding bodies for the benefits of adequate public financing of electronic filing processes.

When such funding is not available, the standards recognize the need for courts to impose surcharges in order to be able to provide electronic filing processes. One alternative is to enter into a contract with a private sector service provider to make the capital investment needed to implement electronic filing processes in return for reasonable transactional fees. The vendor collects such fees from lawyers and others using its services; the court plays no role in the collection process. The court does have an obligation to see that vendor transaction fees are reasonable. Courts entering into such contracts should ensure that their procurement processes are competitive and that one of the major selection criteria is the lowest cost to court users for filing and accessing electronic documents.

An alternative is for courts to collect such surcharges themselves to recoup the costs of operating and supporting an electronic filing process. The standards require that such fees be limited to amounts needed to recover the actual marginal costs of operating the electronic filing process. Such fees should not be used to generate revenues for general court operations, or for general court operations associated in some way with electronic

filing processes, such as the review of proposed filings and their entry into the court's docket or register of actions – processes that the courts have traditionally performed in a paper world. (This prohibition against use of fees to "make a profit" for the court does not prevent a court from entering into a contract with a private sector service provider which includes a reasonable rate of return on investment for the vendor.) Courts imposing fees should consider alternatives to transaction based assessments. Monthly or annual subscription fees, based on general categories of use, are much cheaper to administer. Fees should not differ based on the nature of the requesting organization. Although some would argue that publicly funded agencies should be excluded from such fees altogether, the better analysis is that the cost of electronic filing processes should fall proportionally and equally on all users of those systems and not rest exclusively on private sector users. Fees should not differ based on the use to which court documents will be put (e.g., persons requesting court records for commercial purposes should not be disfavored over those requesting them for research, press, or personal reasons). Surcharges should be waived if a litigant has obtained court approval for waiver of filing or other fees. Courts should be particularly concerned about the effects of surcharges on access to the courts by self-represented litigants.

A third model is for a hybrid process of court and vendor-supported systems, currently operated in several courts. A court can provide its own free electronic filing process, with limited support services, and authorize one or more private sector service providers to offer value-added services to court users to supplement the court's "core" access service. The value-added services can include improved application features, integration of electronic filing with law firm case and records management systems, greatly enhanced training and user support, and seamless support of electronic filing in multiple courts in multiple jurisdictions. This hybrid ensures that courts are making electronic filing services available to the public and to persons for whom any additional costs constitute a barrier to access, while enabling users who can afford enhanced capabilities to obtain them at a reasonable price. It also provides protection to the court and to court users from disruptions caused by private sector service providers going out of business.

### Standard 1.1K  Court Control over Court Documents

**Whenever a court's electronic documents reside on hardware owned or controlled by an entity other than the court, the court will ensure by contract or other agreement that ownership of the documents remains with the court or clerk of court. All inquiries for court documents and information will be made against the current, complete, accurate court record.**

Electronic filing processes operated by a private sector service provider often maintain court documents on the vendor's computers. Some agreements require or allow the vendor to serve as the means by which the court, parties and the public obtain access to the records. Other arrangements allow the vendor to keep copies of documents it

transmits to the court, and to generate income from providing access to those copies. Finally, a number of local courts rely on executive branch computers and information technology services to operate their automated systems. In all of these instances, courts must ensure that electronic court records maintained by others are handled in accordance with court policies. While courts may not have physical custody or possession of such records, because the computers on which they reside do not belong to the court or physically reside in a courthouse, they must retain ownership and control over them.

Courts should have written agreements setting out the nature of these relationships and insuring that the court or clerk of court (whoever, by law, is the official custodian of court records) has the authority to control the manner in which the records are maintained and the terms and conditions under which persons have access to them. Employees of the entity owning or controlling the hardware will be bound by the conditions of their employment to respect the terms and conditions set forth by the custodian of the court's records.

Courts should also insist that private sector service providers supporting their electronic filing processes have clearly stated service agreements with court users they serve, setting forth the nature of the vendor's fiduciary relationship with its client, disclosing fully any use that it will make of the client's documents other than to transmit them to the court and maintain a copy for security purposes. To implement these requirements, it will be necessary for a court to require any private sector service provider serving its users to register with the court and to comply with court requirements concerning the service to be provided to the vendor's customers, the terms and conditions under which it will be provided (including required disclosures), and the vendor's obligations to the court.

The court's contract with a private sector service provider should also include protections for the court's records in the event the vendor goes out of business.

The second sentence of this standard provides that all queries to a court must be answered from current, complete and accurate court data. Some private sector service providers desire the right to serve as repositories of court record information for resale to the public. While courts may enter into agreements allowing vendors to provide such services, they must ensure that all information provided is consistent with official court records at the time the information is provided... An electronic filing service provider's files may not include all documents filed in a case (if, for instance, a court is served by more than one vendor or the court itself files documents that do not go through the vendor's system. And they may not contain current information on the status of those records – such as sealing or expungement of documents and court data. For those reasons, the court must ensure that vendor's verify their data against the court's official records before providing it to an inquirer. Courts need not allow queries from vendors or outside users to run against the court's production data base. They may provide such data from mirrored or duplicate data bases set up to protect the production data base from the overhead created by outside users and to provide increased system security.

Such mirrored data bases include real time updates from the production data base in order to ensure currency, completeness and accuracy.

### Standard 1.1L  Addressing the Special Needs of Users

**In developing and implementing electronic filing, courts will consider the needs of indigent, self-represented, non-English speaking, or illiterate persons and the challenges facing persons lacking access to or skills in the use of computers.**

The intent of this standard is for courts to take reasonable steps to ensure that electronic filing systems promote, rather than create barriers to, public access to the courts.

Courts can ensure that electronic filing processes comply with any requirements imposed by the Americans with Disabilities Act or the Rehabilitation Act.  They can ensure that websites used for electronic filing are "Bobby compliant" (i.e., that they comply with the Bobby Worldwide guidelines developed by the Center for Applied Special Technology, a non-profit organization devoted to insuring access to technology for persons with disabilities.  See http://www.cast.org/Bobby  "Bobby compliance" ensures that a website's content is accessible by a person using special readers for persons with sight and hearing disabilities.

Courts can waive any fees associated with electronic filing or with electronic access to electronic records for persons who are not able to pay them.  They can require that private sector service providers operating electronic filing systems for the court make those services available at no cost to indigent persons or self-represented persons without regards to a means test.

Courts can ensure that their electronic filing applications are as simple and easy to use as possible, through user testing processes that involve members of the public and self represented litigants as well as lawyers and their staff.

Courts can ensure that computers for electronic filing and for access to electronic documents are available in the courthouse, in public libraries, in community and senior centers, in shelters for victims of domestic abuse, and in other public facilities.  Courts can provide scanners at the court house for the use of unsophisticated persons to create electronic documents suitable for filing.  Or court staff can scan and file such documents for persons unable to create their own electronic documents.  The Interactive Community Assistance Network (ICAN) (http://www.legal-aid.com) system developed by the Legal Aid Society of Orange County, California provides an example of the use of electronic filing to increase access to justice for self-represented litigants.  The ICAN system uses kiosks to inform potential litigants of their legal rights and options and to assist them in creating necessary court forms.  Upon completing the forms, the litigant can choose to file

them electronically with the Orange County Superior Court from the same kiosk with a few additional commands.

Electronic documents do not increase the problems of non-English speaking, disabled (e.g., persons with sight or dexterity impairments) or illiterate persons.  In fact, electronic documents can more easily be converted into spoken word for persons with vision impairments.  But persons in these categories will require significant amounts of personal assistance from court staff or other community resources or volunteers to use electronic filing and access capabilities successfully.

## 1.2    Court Rules

### Standard 1.2A  Service of Filings on Opposing Parties

**Court rules may provide that electronic transmission of a document through the electronic filing process to opposing counsel or parties who participate in the electronic filing process will satisfy the service requirements of court procedural rules.  Such electronic filing processes will automatically create and docket a certificate of service for documents served electronically through the electronic filing process.  Court rules need not provide additional time for responding to documents served in this fashion.**

An important incentive for lawyers' use of electronic filing is elimination of the requirement that a filing be served by mail or physical delivery on other parties to a lawsuit.  The functional standards allow electronic filing processes to automatically transmit a copy of a document submitted electronically to the court to other parties participating electronically in a case.  A number of court rules currently recognize such electronic service as sufficient to satisfy service requirements contained in the rules of civil and criminal procedure.  Such rules apply only to the routine service of documents during the course of a legal proceeding.  They do not apply to service of process required to notify the defendant or respondent of the filing of the lawsuit in order to establish a court's jurisdiction to decide the case and to satisfy the due process of law requirements of the United States Constitution.

The electronic filing application should create and docket a certificate of service, obviating the need for the filer to file such a certificate.  Such an automated certificate of service will be accessible to judges, lawyers and court staff for purposes of verifying service.  Counsel (and unrepresented parties) will still be required to serve parties who are not participating in the electronic filing process in the conventional manner (and file a traditional certificate of service concerning such service).  To support this capability, the functional standards require an electronic filing system to provide the filer with the information needed to identify persons who must be served conventionally.

"Participate in the electronic filing process" means be registered for electronic filing and have a password and ID or other unique identifier for use of the system.  It is not limited to persons or parties who have agreed to participate electronically in a particular case.

Some courts may be concerned about assuming responsibility for a function for which lawyers and parties have traditionally been responsible.  However, the efficiency of the legal process will be enhanced by having service performed by the electronic filing

process. Courts can address any failures that may occur by the remedies created pursuant to Standard 1.2E.

The standard recommends that no additional time be allowed for response to a document served electronically. Court rules typically allow three additional days to respond to a document served by mail, recognizing that the postal service ordinarily requires that period of time for delivery. However, electronic service is more analogous to personal delivery than to service by mail. It is instantaneous. One of the objectives of electronic filing processes is to save time in legal processes. Consequently, the standard recommends that no additional time be provided for responding to documents served electronically.

Service of a filing is traditionally made simultaneously with or even before the document is submitted to the court for filing. It is not contingent upon court acceptance of the document for filing. This same principle should be followed in electronic filing processes. While it is possible for an application to be configured to send notice of a filing after it has been accepted for filing, or entered on the court's docket or register of actions, there is no reason to delay transmission of the electronic document for completion of any court processes. This is especially true given the principle in the standard that no additional time should be provided for responding to an electronically served document. Service of the document, even through a court maintained electronic filing process, does not constitute a representation that the document has become a part of the official court file. It merely represents that the document has been submitted for filing.

This standard does not apply to documents served on opposing parties in advance of their filing in court, in which case the filing should include a traditional certificate that service was completed at a prior time.

Courts will have to amend their rules of procedure to implement this standard. Some may have to urge the legislature to amend statutes setting forth procedural requirements. Some state statutes require the party filing a paper in the court to complete and file a certificate of service for that document; such a requirement should be satisfied by the automated docket entry created by the court's electronic filing system at the time service is completed electronically – even though it is not completed by the lawyer filing the paper.

This standard does not apply to service of summons initiating a new case. It is only a matter of time, however, before court rules, decisions, or statutes will also recognize electronic service of process as sufficient to create personal jurisdiction over a party to a lawsuit. See *Rio Properties, Inc. v. Rio International Interlink*, No. 01-15466 (9th Cir. March 20, 2002), holding that service of process by e-mail to a foreign corporation's e-mail address, pursuant to trial court order under Federal Rule of Civil Procedure 4(f)(3), was sufficient to satisfy procedural and constitutional due process of law standards.

### Standard 1.2B  Use of Unique Identifier

**Court rules will provide that a lawyer or other person provided with a unique identifier for purposes of filing documents electronically will be deemed to have filed any document submitted using that identifier.**

Many court electronic filing rules include this presumption.  It serves as a means for protecting the court process from claims that a filing was not authorized by the filer.  It also notifies an attorney or other court user of the responsibility attached to the issuance of an identifier provided to him or her for electronic filing and electronic record access purposes.   Standard 1.2E provides a remedy for egregious cases when the presumption created by the standard should be overcome.   This standard does not appy to self-identification used in some courts.  See Standard 1.1G, Identity of the Sender.

### Standard 1.2C  Determining when a Document is Filed

**Court rules will articulate the criteria by which an electronic document is deemed "received", "filed," "served," and "entered on the docket or register of actions."  Courts will record the date and time of filing and inform the filer of them or of rejection of the document and the reasons for rejection.**

There are significant variations nationally in the standards and authority of court clerks in reviewing documents for acceptance.  For instance, the federal rules of procedure do not authorize federal court staff to reject filings for failure to comply with procedural or format requirements, other than the payment of filing fees.  However, some state courts expect their clerks to screen filings for compliance with court and statutory form and content requirements.  Many courts maintain a distinction between documents "received" or "lodged" with the court and documents "filed" with the court.  For example, a document may be deemed "lodged" with the court when it is filed with a motion to waive the filing fee and the court has not yet acted on that motion.

These standards do not recommend a single standard for the meaning of these terms or for the processes that courts should follow in reviewing and accepting documents submitted to become part of the official record.  Rather, the standard requires courts to articulate for attorneys and self-represented litigants the court's definitions of terms and its process for receiving and accepting filings.  These definitions may be set forth in a court decision or a statute rather than in a court rule.

There is no issue more important to lawyers than the certainty of knowing exactly when, and by what process, a document submitted to a court will be deemed "filed."  In the most extreme instance – the proximity of the running of the statute of limitations – large personal and financial interests may rest on this issue.  There are instances in the

criminal process when the filing of a document within a time period set by law determines the confinement status of a person charged with a felony.  Timely filing of an answer obviates the entry of judgment by default.  Untimely filing of even routine pleadings can result in violations of court rules resulting in embarrassment of counsel, tactical disadvantage for a client, or the imposition of sanctions against counsel and client.  Every court has its own way of handling these issues in a paper world.  Interestingly, those processes (for instance, for "receiving" or "lodging" of documents) rarely appear in the rules of procedure or even in local court rules.  They are often part of the lore of the clerk's office.  The implementation of electronic filing merely focuses attention on the ambiguities of local filing practices.  Those ambiguities, however, create uncertainty and resulting resistance to use of the electronic filing process.  Requiring a court to articulate its criteria will remove the ambiguity for local filings, although attorneys will continue to face the reality that different courts will follow different practices throughout a state and throughout the nation.

The critical event for an attorney is the "filing" of the document.  Is a document deemed "filed" (for purposes of the running of the statute of limitations and other statutory and court rule timeliness requirements) when it is submitted by the filer to a private sector service provider, when it reaches the court's server (or a vendor's server, if the vendor operates the court's electronic filing process server), when it has been reviewed by court staff for sufficiency, or at some other moment?   The answer may be more complicated.  For instance, some courts deem a document filed as of the moment it reaches the court's electronic filing server, provided it is not subsequently rejected for noncompliance with court filing requirements.  While the date and time of filing are most critical for litigants, the standard calls for the court to define, as well, its criteria for deeming a document served (when it is served electronically; see Standard 1.2A) and when a document is entered on the docket or register of actions (at which time, presumably, it will become available for viewing by judges, court staff and other court users).

Traditionally courts require that documents reach the court before they are considered filed.  Courts do not accept a postmark as the date of filing.  The party bears the risk that a document will get lost in the mail, or by a courier.  Many local rules for electronic filing maintain that standard – placing the risk of non-delivery or late delivery on the filer.  This standard provides the flexibility for a court to deem a document filed when it is submitted by a law firm or self-represented litigant to a private sector service provider.  The standard does not necessarily recommend that practice.  But electronic transactions create an audit trail allowing the court and the parties to know with certainty the precise steps followed in any transaction.  Courts consequently have the freedom to experiment with different approaches.

If a particular court makes no distinction between two or more of these events, it need not keep a record of them separately.  For instance, many courts consider that a document is "filed" when the message containing an electronic document for filing reaches the court's server.  Such courts maintain no distinction between "received" and "filed."  Their definition of "filed" will make this clear.  The standard only requires a court to maintain a

record of the date and time of filing; it does not impose any requirement to maintain additional data beyond that a court chooses to record and keep.

The court's definitions and processes should clearly set forth the obligations, if any, of a private sector service provider for keeping records of transmission times and events.

In establishing and articulating its definitions and procedures a court should decide whether to make a distinction between a flawed filing and flawed data accompanying a filing. In a paper filing environment, does a court reject a complaint in a civil case if it lacks a cover sheet, or if the cover sheet contains data inconsistent with the complaint itself? Most filings do not require a cover sheet. Consequently, it appears that litigants may face a new risk in an electronic environment that they did not face in a paper world – that a satisfactory filing will be rejected because of inadequacies in the data supplied with the filing. For instance, the data provided with a filing may include the wrong case number or party name. Should court staff (or fully automated processes) reject the filing because of the inconsistency between the document and the data submitted with the document? Or should they hold the filing in a "received" status until the data can be corrected, and when the data has been corrected deem the document filed as of the date of its original submission? The standard does not favor either answer to this issue, but requires a court to be clear – for itself and for litigants – how the matter will be resolved. The potential problem may be mitigated by providing court users with access to the automated programs used by a court to screen electronic submissions for inconsistencies. A user could use the software as a quality control step before submitting a document to the court. Of course, this remedy would not apply to inconsistencies identified by court staff during the review process.

For purposes of exactness, a court should make sure that the time recording device on its computer, or on the computer of its private sector service provider, is routinely synchronized with the "Denver clock" – the official national time standard. That will enable the court to rule authoritatively on timeliness if there is a variance between the time of sending as recorded by a filer and the time of receipt recorded by the court.

The standard requires courts to "inform" a filer of the date and time of "filing" of each document submitted electronically. Most courts will accomplish this by sending a message of acknowledgement to the filer. However, the standard does not require such a process. A court may choose to post information on its website of the status of all documents received on a particular date, requiring counsel to take the initiative to seek out the information provided. The acknowledgement of filing should include the "hash" for the filed document for future verification of the document's integrity (see Standard 1.1H Integrity of Transmitted and Filed Documents and Data). There is no requirement that a court provide similar information that a document has been served or entered on the docket or register of actions. While it is important that the court have clear standards for these events, litigants' records would merely be cluttered by information about non-essential events.

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### Standard 1.2D  Availability of Electronic Filing Process

**Courts will accept electronic documents 24 hours per day, 7 days per week, except when the system is down for maintenance.  The date on which document will be  deemed filed  will be in accordance with the court's definition of "filed" pursuant to Standard 1.2C, whether or not the clerk's office was open for business at the time the document was submitted electronically.**

A number of courts have created rules providing that documents filed after regular court business hours will be deemed filed the following day.  These rules are established to maintain parity for electronic and paper filers.  These standards seek to create maximum incentives for the use of electronic filing and foresee an environment in which all court documents are maintained in electronic form.  There is no reason not to take full advantage of the capabilities of an electronic environment and allow filers to file as late as 11:59 pm on the date a filing is required.  Many statutes and court rules provide that the courts are always open for business.  Electronic filing processes make that aspiration a reality.  As a practical matter, the judge and opposing counsel will not see a paper document filed at the close of business until the next business day; the standard therefore creates no change in the tactical positions of legal adversaries.  So, too, having work already queued in the clerk's office at 8:00 am on Monday morning makes little practical difference from having lawyers file all of the work they did over the weekend between 8:00 and 9:00 am that same morning.  In fact, technical resource leveling may be improved by creating an incentive for lawyer filings during other than regular court working hours.

The standard recognizes that this result will not be possible for courts that choose to define "filing" under Standard 1.2C as the date and time a document is entered in the docket or register of actions.  In such cases, if courts are not using an automated process for docket update without clerk review, filing can only occur when court staff are working.

Nothing in this standard is intended to require a court to guarantee the availability of its electronic filing system on night, weekends, and holidays, nor is there an expectation or requirement for ensuring availability of technical staff to address system failures on a 24 x 7 basis.  Standard 1.2E addresses court rules for remedies and relief when systems are unavailable.  The standard expects that courts will inform users they may use the system to file on a 24 x 7 basis, with the understanding that the court cannot guarantee the universal availability of the system.

This standard may require adjustments to a court's case management information system to accommodate filings on dates and at times other than those allowable or contemplated in a paper world.  Courts in some states may not be able to comply with this standard due to existing statutes or legitimate court business needs.

### Standard 1.2E  Remedy for Failure of Electronic Processes

**Court rules will create procedures and standards for resolving controversies arising from the electronic filing process.**

A number of courts and lawyers are skeptical about electronic filing processes because of uncertainties about delays due to the inconsistent reliability of computers and of telecommunications networks. Courts using electronic filing systems do not experience these problems in large numbers, making a case by case decision making process a reasonable remedy in terms of the needs of the courts as well as those of lawyers and parties.

The standard does not attempt to articulate a legal definition for the circumstances that will justify a court's providing relief.  The court rule creating the remedy should set forth a standard or standards by which such matters will be resolved.  This same remedy should be available for resolving issues concerning a claim that a document in the court's database is different from the document submitted for filing, for claims that a filer did not file, or authorize the filing of, a document submitted, and for claims that a filing date should be corrected because the court (either automatically, e.g., because the filing contained a virus, or as an exercise of the clerk's discretion) rejected a filing inappropriately.

## 1.3    Implementing Electronic Filing Systems

### Standard 1.3A  Universal Electronic Filing Processes

**Courts will ultimately include all documents in all case types in electronic filing processes although they may implement electronic filing incrementally.**

The ultimate objective of an electronic filing process is to have all court records maintained in electronic form.  That requires that courts accept all documents – those that initiate a case as well as those filed in an existing case, those that require filing fees as well those that do not, those with attachments as well as those without – in all types of cases.  Electronic filing processes are always introduced initially for specific case types. The case types chosen vary from court to court – criminal, civil, domestic relations. However, the goal must remain to include all case types in the process eventually.

Some courts may choose to maintain some specific exceptions to electronic filing processes.  Some courts exclude the filing of original wills in electronic form because images of those documents may not disclose possible alterations of the original document.  Another exception might be for documents signed under penalty of perjury. As noted above (Standard 1.1H, integrity of Transmitted and Filed Documents and Data), it is not clear that electronic signatures will support prosecutions in such cases.

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An alternative to exclusion of such documents from electronic filing processes may be to adopt a rule requiring the submitting party to retain physical custody of the original signed version and to make it available for inspection by the court or any party upon request.

### Standard 1.3B  Mandatory Electronic Filing Processes

**Court rules may mandate use of an electronic filing process if the court provides a free electronic filing process or a mechanism for waiving electronic filing fees in appropriate circumstances, the court allows for the exceptions needed to ensure access to justice for indigent, disabled or self-represented litigants, the court provides adequate advanced notice of the mandatory participation requirement, and the court (or its representative) provides training for filers in the use of the process.**

Electronic filing processes are almost always introduced as voluntary alternatives to filing paper documents.  Early implementers are drawn to participate by the lure of a new process.  Others will join when they become convinced that participation will be in their personal self-interest.  However, as with the introduction of any new procedure, there will remain a significant group who will continue to refuse to participate if the process remains a voluntary one.

The standard recognizes the necessity that all lawyers and other large court filers with significant means participate in electronic filing processes if the justice system is to accomplish the objectives set forth in the introduction to these standards.  That may require that a court mandate participation by such parties at some point.  The standard sets forth the circumstances under which a court may mandate participation:  it offers a free alternative to a fee-based private sector service provider system or institutes a mechanism for waiving fees in appropriate circumstances; it continues to allow persons whose access to the courts would be impeded by being required to file electronically to file on paper (with court staff converting those documents to electronic form); it provides adequate notice; and it provides training assistance for the reluctant participants and their staff.   This training may be provided by a contractor.  It need not be provided in person; web-based or CD-ROM based tutorials may suffice.

In most courts, a requirement of mandatory participation will follow a period of voluntary implementation during which the viability of the process will become apparent.

### Standard 1.3C  Judicial Discretion to Require Electronic Filing in Specific Cases

**Judges will have the authority to require participation in the electronic filing system in appropriate cases until such participation becomes mandatory for all cases.**

In courts that have not yet imposed a mandatory electronic filing requirement, there will be some cases that are obviously appropriate for electronic case files.  An example is a large toxic tort case with many parties and many large documents.  Trial judges should have the discretion to require parties in those cases to participate in the electronic filing process.  If that requirement imposes financial hardship on a particular party, the court can arrange for the party to use court or other equipment to scan and file documents electronically, or, in extreme cases, require court staff (or, possibly, the opposing party) to perform the scanning and filing processes for an indigent party or a party lacking the skills needed to use an electronic filing process and incapable of obtaining assistance from others in the community.

### Standard 1.3D  Maintaining Supplementary Scanning Capability

**Courts will ensure that all documents in electronic cases are maintained in electronic form.  Consequently, in voluntary electronic filing processes, courts will scan paper documents and file them electronically.**

This standard recognizes a distinction between electronic court documents and electronic court files.  Courts implementing electronic filing have learned that it is difficult for judges and court staff to keep track of all court documents in a case if some of them exist only in electronic form and others exist only in paper form.  In these instances, there is no single place to which any participant in the case can turn to see all official court documents.

This problem can be remedied by requiring that cases proceed either as electronic or as paper cases.  In an electronic case, any documents submitted on paper are scanned and filed electronically.  This process can be implemented by allowing electronic filing only prospectively – in cases commenced after the date of system implementation.  In such cases it is feasible for the court and the parties to create all-electronic court files.  In most courts this process will be facilitated by implementing electronic filing incrementally case type by case type.

In courts that have been scanning all paper filings in the past, prospective only implementation will not be necessary.  The court will already have previously filed documents in electronic form.

Courts may also decide to image all prior documents in complex legacy cases that appear likely to continue well into the future, so as to be able to take advantage of the benefits of electronic documents in such complex cases.

### Standard 1.3E  Quality Control Procedures

**Courts will institute a combination of automated and human quality control procedures sufficient to ensure the accuracy and reliability of their electronic records system.**

Moving from paper records to electronic records does not change the court's obligation for quality control.  However, it does change the context within which it occurs.  It cannot occur at the front counter, and it requires screening of documents on a computer screen.

Courts implementing electronic filing systems have hoped that the quality of attorney filings will be sufficiently high that they can be accepted automatically into a court electronic record system.   To date, they have been disappointed.  It is possible that as electronic filing becomes more firmly established in the legal culture the quality of filings, and of the data accompanying them, will improve to the point that automated review by a computer will identify all flawed filings.  Today, however, review by a court staff member still appears necessary.

The functional standards require that electronic filing systems have the capability for court staff to review all filings, and the data submitted with them, before accepting them into the official court record.  Courts should ensure that staff are available to perform this review function and organized to complete it in a timely manner. This review requires the capability to view the submitted document and the data submitted with the document on a screen simultaneously. The experience of courts using electronic filing is that the time required for quality control of automated docketing of electronic filings is less than the time required to perform the parallel functions in a paper environment.  One court has reported that the time from filing to entry on the docket fell from days to hours with the introduction of electronic filing.

The functional standards also require electronic filing systems to have the capability to screen cases for acceptance automatically.  Part of the review of filed documents will be automated – to screen for the presence of computer viruses, for consistency with court format requirements, and the like.  Courts may wish to automate additional portions of this review – such as comparison of the data submitted by the filer with the contents of the document itself (e.g., case number, party name and address, attorney name and address).   Automated screening may also include validity checks, such as ensuring that the party is in fact a participant in the case number designated by the filer.  Based on the experience of courts using electronic filing, a fully automated screening process is currently practical only in matters like traffic citations that are so routine that the correctness and completeness of a filing could be determined automatically

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As time passes, courts will experiment with relying more heavily on automated quality control checks.  This will become a more reliable process when documents are submitted in an XML format.


### Standard 1.3F  Eliminating Unnecessary Paper Processes

**Courts will eliminate paper processes that are obsolete or redundant in an electronic environment.**


A number of courts have insisted that electronic filing systems exactly duplicate the characteristics of current paper systems.  Courts should, however, view the introduction of electronic filing as an opportunity to review and revise their work processes. The question asked should be "How can we take advantage of the capabilities of electronic documents to make our work quicker and easier?" rather than "What do we have to do to electronic documents to continue to do our work the way we have always done it?"

An example of a manual process that many courts have duplicated electronically is the affixing of a clerk's office file stamp on an electronic document.  Some courts have required that an electronic filing application add the text for a file stamp -- showing the name of the court and the time and date of filing -- in the top right hand corner of an electronic document.  However, the functional equivalent of a file stamp can be created electronically through a separate electronic record linked to the filed electronic document. Courts should carefully consider whether manual processes need to be retained for solid case processing reasons or business reasons before requiring their inclusion electronically.  Strong judicial and administrative leadership will often be required to ensure universal implementation of the necessary changes.

Courts should also experiment with alternative means of verifying a judge's actions on an order or other official document.  Affixing a traditional signature to a document through the use of a graphical representation of the signature is an artificial holdover from the practices and expectations of a paper world.  However, any digital alternative will have to be acceptable to all users of court documents, including law enforcement officers, bank officials, and lawyers.

Electronic filing may present new opportunities for handling the record on appeal in appellate proceedings.  Virtually all parts of the trial court record will be preserved electronically, including the transcript of the proceedings, any documentary or photographic evidence, and visual aids used by trial counsel (including multimedia presentations).  Only physical evidence such as drugs, weapons, clothes and other such tangible items will exist outside of the electronic record.  Appellate judges will have the option of viewing or printing items from the trial court record directly from the trial court's server, without requiring that the record on appeal be transferred to the appellate court

either in paper or electronic form.  Trial courts can grant appellate judges and staff user privileges to view all documents in the case.

Similar processes may be available for visiting judges to view trial court records in cases assigned to them.  They may be able to prepare for hearings and trials by accessing trial court records remotely, obviating the need for sending paper copies for review.

Appellate judges will also have the opportunity to read briefs on a computer screen. Having them on a computer will make them much more portable and convenient. Electronic documents can include copies of all precedents cited in them, making research much easier.  Appellate courts should resist the temptation to require staff routinely to print and bind paper copies of appellate briefs and appendices.

### Standard 1.3G  Integration with Case Management and Document Management Systems

**Electronic documents will be accessed through a court's case management information system.  Courts will mandate that case management information systems provide an application programming interface capable of accommodating any electronic filing application that complies with these standards.  Courts using electronic filing processes will require automated workflow support.**

In order for judges, court staff, attorneys and other court users to easily access electronic court documents they must be linked to the court's case management information system.  A person looking for a document will view the electronic docket or register of actions, locate the document there, and "click on" the entry for the desired document.  A link will take the person directly to the document he or she wishes to view.  Any other indexing process for court documents is unwieldy and unworkable.

Achieving this degree of integration of an electronic filing with a case management information system requires an application programming interface (API) to the case management information system.  A court will have to require its case management information system vendor (or its own staff, if its system has been developed in house) to provide such an API.  In the absence of such an interface requirement, a court may find itself held hostage to an exclusive electronic filing process provided by the case management information system vendor or the vendor's business partner.  The requirement that case management systems contain such an interface has been included in the functionality standards for case management information systems adopted by the Conference of State Court Administrators and the National Association for Court Management.  Those standards are available from the National Center for State Courts Technology Standards web page (http://www.ncsc.dni.us/ncsc/ctp/htdocs/standards.htm) or from a link at the National Center for State Courts homepage

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(http://www.ncsconline.org).  Courts that have developed their own case management information systems may face a challenge in developing such an interface so that an electronic filing process will function in the court.  Planning for the time and cost of developing that interface will need to be included in the court's implementation plan.

The Conceptual Model for electronic filing processes shows the relationship between case and document management systems and the other components of a state of the art electronic filing system.

In addition, courts should anticipate the need for what are referred to as "workflow" processes supported by case management or document management systems.  A workflow function automatically transfers an electronic document from a user to the next person in the court's work process who must deal with it.  Alternatively, it creates a work assignment related to the document for another person in the organization.  Automated workflow processes are needed in an electronic document environment because the traditional workflow tracking mechanism – represented by the piece of paper itself – no longer exists.  For example, a judge today knows that he or she must rule on a motion to waive filing fees because the motion is delivered physically to the judge.  If the motion exists only in electronic form, how does the judge learn of the existence of the motion and of his or her obligation to decide it expeditiously? A workflow process will automatically, upon entry of such a motion into the case management or document management system, assign the matter to a judge and create an e-mail message (or a similar entry in some other form of electronic queue) for that judge with an urgent flag attached to it.  The message will have a link to the electronic document (in this case, the motion to waive filing fees) and may automatically call up a standard form of order for the judge to complete and execute electronically.  When the judge completes the order acting on the motion, the system automatically files the judge's order as an electronic filing and creates messages to the judge's secretary – creating a task to send a copy of the order to the litigant – and to the court clerk responsible for the case -- to accept the filing submitted without a filing fee (which the system then acknowledges to the filer automatically), to create a new case in the case management information system, to issue a summons electronically to the filer, and to take any additional step required by the court.  As this example demonstrates, workflow systems require a great deal of analysis and specification by a court to work effectively.  However, in their absence, a court deprived of its paper cues for work needing to be accomplished will flounder.

Workflow processes may be programmed into either a case management information system or a document management system.  They are more typically found in document management systems on the commercial market.  The sophistication and complexity of the workflow process needed by a particular court will vary with the court's size and the diversity and complexity of its caseload.

### Standard 1.3H  Archiving Electronic Documents

**Courts will maintain forward migration processes to guarantee future access to electronic court documents.**

The federal National Archives and Records Administration and most of its state counterparts have been reluctant to accept electronic court records for archival purposes. They generally require courts to convert them to microform for archiving.  Their reluctance generally stems from the common experience that documents created on equipment and software over ten years ago (for instance on outdated word processing technology) can no longer be read – not because the storage medium of magnetic tapes or disks have failed but rather because the basic hardware and software required to read the storage medium no longer exist or are no longer maintained or supported by the company that created them.

Transforming court electronic records to microfiche, even using the Computer Output Microfiche (COM) process, entails additional expense and undercuts the cost and efficiency savings sought from electronic records processes.  Microform fails altogether to capture tags included in XML or HTML documents.

A few state archives have agreed to accept electronic court records when the court system has signed a guarantee that they will maintain forward compatibility of all permanent court records.  This can be accomplished either by requiring that any new automated applications be able to display and print documents created or maintained on the equipment and software the new applications are replacing, or, alternatively, that all old documents be converted to a format readable by the new equipment.  In either case the court is taking on a major additional commitment to pay attention to the integrity of its historical as well as of its current records.

This standard requires courts implementing electronic filing processes to implement such forward migration – whether or not its permanent records repository currently accepts electronic records with such written assurances.  This will be the future archival standard and all courts should be prepared to support it.

# SECTION 2 – CONCEPTUAL MODEL

# 2 Conceptual Model

For any court intending to implement electronic filing, two technical areas are essential for understanding:

- Understanding of general XML and related standards
- Understanding of the XML Electronic Court Filing Standard (ECFS) and associated work

While the first can be left confidently in the hands of technologists, it is critical that court managers have a working understanding of the underlying principles of ECFS so they can effectively manage the inevitable process re-engineering and organizational impacts. The application of electronic filing principles and assumptions will have a major impact on how cases and documents are received, processed, and transmitted during or after court action.

To assist court managers achieve this understanding, this section of the document presents a history and general overview for non-technicians of the technical standards with which courts and system providers are expected to comply. The discussion attempts to avoid technical jargon. Where it is inescapable (e.g., XML, BLOB), footnotes or cross-references are provided. Some definitions are critical for understanding the conceptual model and technical standards:

- XML is a method of "tagging" case data (names of parties, telephone numbers) to allow different computer applications to comprehend what is contained in the data (e.g., last name) so they can load it into their databases.

- A BLOB[4] is an entity that can be passed within a data stream to another application, but for which the receiving application will be unable to differentiate the individual components of the "BLOB". For example, a document sent as a BLOB with text including names would be understood only as a document; there would be no ability to read inside the document to pull out a last name. For example, scanned images sent as TIFF or JPEG files are types of "BLOB" documents. An application cannot open these documents and distinguish the last name and first name.

- Throughout this document, "ECFS" refers to the technical XML Electronic Court Filing Standard that has been adopted as a Proposed Standard by the Joint Technology Committee (JTC) of COSCA and NACM. References may be to either "ECFS XML" or "XML ECFS".

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[4] Binary Large Object (BLOB)

The Conceptual Model for Electronic Filing supports a vision of fully electronic transmission of documents into courts, electronic processing of documents within courts, and electronic transmission of documents from courts, with the electronic record serving as the official court record (Standard 1.1A **Official Court Record**).   Courts may choose to implement or migrate to the model incrementally.


# BACKGROUND


The Electronic Filing Process Standards are intended to serve the trial and appellate courts and administrative tribunals.  The original and continuing vision for electronic filing processes is ease of interoperability – providing courts and entities doing business with courts the technical standards to guide them in accessing and receiving data and electronic documents from courts.  This vision extends to the global nature of electronic interchange, including the concept that initiators of filings into courts and receivers of data from courts will have an electronic means to negotiate the traditional boundaries of varying rules, procedures, statutes, terminology and technical application implementations between and among courts in different jurisdictions within a state, in different states, between levels of government, and, ultimately, in different nations.

The diagram in **Figure 1 - Interoperability Concept** is a simplified depiction of this intended interoperability.  The courts shown may exist in the same state, in different states, and at different levels of jurisdiction.

The ability to share data among courts and other agencies has been a goal for most of the past 30 years of court automation.  However, few court systems have achieved the desired levels of data sharing within their own jurisdictions let alone outside their jurisdictions.  Proprietary hardware and software platforms, the inherent operational differences among courts, the independent nature of the judiciary, and the intensive labor associated with developing systems for sharing has stymied most jurisdictions.

With the emergence of eXtensible Markup Language (XML)[5] as a reliable technical solution for specifying and "tagging" the common data needed, a technical solution to the long-standing problem of sharing among disparate systems became a real possibility. In late 1999, a confluence of events resulted in a synergistic melding of private and public sector individuals and organizations focused on developing an XML court filing standard that could be used by all levels of courts in the United States.

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[5] [5]XML is the eXtensible Markup Language developed by the World Wide Web Consortium.  Information can be found at their website: http://www.w3c.org

## Figure 1 - Interoperability Concept



Adapted from diagram by Winchell "Todd"
Vincent III presented at JTC CIO Conference,
August 12, 2001
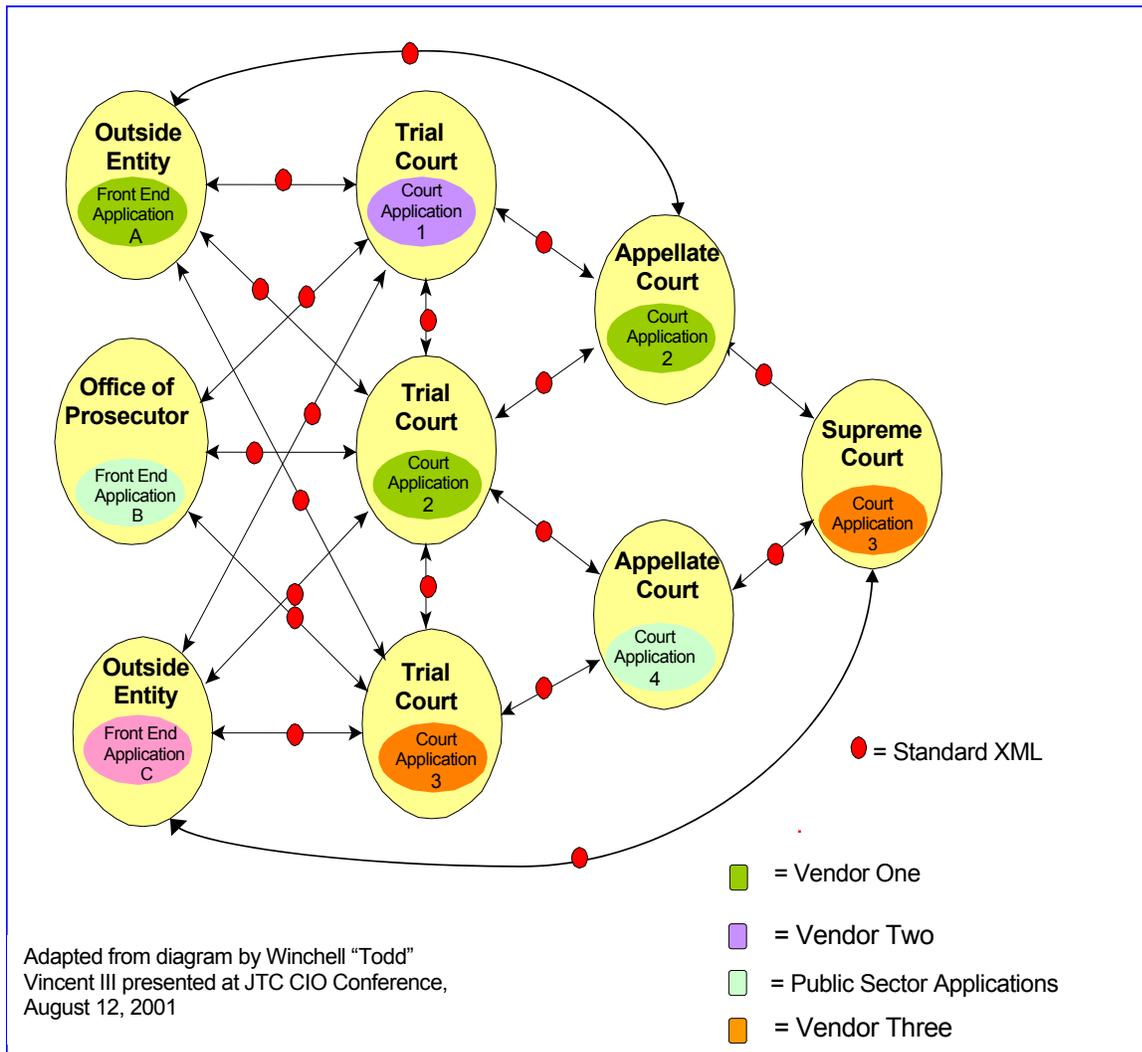
The development path for XML standards for electronic filing is following the general
progression below.

1. **Electronic submission of data and an accompanying
   document (that may be a "BLOB")** into courts and return of an
   acknowledgement of receipt of the document and data.

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The submitting application must acquire knowledge of the specific rules, policies, and allowable values for the court and incorporate them into its submission. The court can populate its database from the associated data submitted with the document, and the sending application can populate its database with the acknowledgement.

2. **Viewing and use of the document for internal case processing** by the court, the submitting entity and parties to the case, and access and viewing by the public.

3. **Electronic queries** to a court for specific information or a document, such as calendars or judgments, and electronic return of information or documents to the requestor for a specific case.

4. Allowable values and **court rules and procedures can be "discovered" electronically** and the application can be used to file in many different courts without modification to the front end system.

5. Electronic **submission and receipt of a "smart document"** where tagged data fields can be read and interpreted ("parsed") to populate court databases.

6. Incorporation of transcripts, full citation and research information, and other **value added elements** into electronic case file processing.

7. Full acceptance of **electronic filing as the sole means of filing at all court levels**, with filing by self-represented litigants, public access to documents, and timely workflow and bench acquisition to documents to allow for the electronic document to be used on the bench in the regular course of case processing.

As of November 2002:

- Many courts are performing "1" and "2"
- A specification has been developed by the OASIS Legal XML Member Section Electronic Court Filing Technical Committee for "3"
- Detailed work on specifications for "4" is occurring with the OASIS Legal XML Member Section Electronic Court Filing Technical Committee.
- A Court Document Specification 1.1 has been developed by the OASIS Legal XML Member Section Electronic Court Filing Technical Committee for "5"
- Efforts are underway on developing specifications for "6"

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- Although "7" may be happening in specific courts, it is not yet occurring within a standards framework.

Each step in the general path outlined above requires procedural, policy, and technical standards. The remainder of this section gives background on the technical standards development activities associated with electronic court filing.

## Scope of the Initial XML Electronic Court Filing Standard (ECFS)

As an initial goal, the creators of the XML Electronic Court Filing Standard (ECFS) consciously agreed to limit their scope to the creation of an XML Document Type Definition (DTD)[6] for receipt and acknowledgement of filings being made directly into a court. That is, the initial standards were not designed to incorporate and relay back to the filer and parties any information about court events, calendars, or other items of interest to court users. The initial XML Electronic Court Filing Standard Version 1.0 published in March of 2000 was limited to accepting the data needed about filings to populate a court's database, the "BLOB" of the document being filed (although courts could allow "tagged" documents if they desired), and the acknowledgement data generated by the court to inform the filer that the filing had been received by the court.

These limitations were intentionally adopted to ensure that a draft electronic court filing standard could be published within a short time frame to demonstrate that a cooperative foundation of work among interested entities and among courts at all levels of jurisdiction was possible and would generally meet each court's technical and processing needs. This achievement of an initial cooperative product was seen as essential to prove not only the technical feasibility of XML as a viable tool for sharing disparate court data, but also to prove the national and organizational feasibility of creating a structure that could be accepted for a wide range of courts.

The COSCA/NACM Joint Technology Committee adopted the Version 1.1 XML ECFS as a proposed standard in July 2002.

## Justice System Data Sharing

The initial vision of the Electronic Court Filing Standard and its components assumed that filings into courts and responses from courts would include not only interaction with lawyers, but also with any entity making a filing to the court, such as self-represented litigants, child welfare offices or collection agencies. Of particular importance are law enforcement agencies, especially in limited jurisdiction courts or in courts where filings occur without an intervening prosecutor's office or attorney. Other justice agencies saw

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[6] Although there were proposals for use of XML Schema, stable W3C standards did not exist at the time the court filing standard work was initiated. It is planned that Version 2.0 of ECFS will be created with XML Schema. This will allow more robust data editing and verification within the standard itself.

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that the ECFS could be used for general sharing of data and documents with other justice entities.

After the XML Court Filing Standard was distributed for nationwide review and use at test sites, cooperative efforts with other justice entities were initiated by the Office of Justice programs (OJP) of the US Department of Justice to ensure compatibility among XML in other major federal and state justice entities. In late 2001, a national effort began under the auspices of the Justice XML Subcommittee of the Infrastructure/Standards Working Group (ISWG) of the Global Justice Information Network Advisory Committee (Global) to reconcile XML data elements. That effort produced a data dictionary containing data elements shared by one or more of the following XML specifications -- the XML Electronic Court Filing 1.0 Specification, the Regional Information Sharing System (RISS) XML Data Exchange Specification, and the XML Interstate Criminal History (Rap Sheet) Transmission Specification. A fourth entity's XML specification, the American Association of Motor Vehicle Administrators, was incorporated in the spring of 2002. As of the May 2002 publication of these Standards for Electronic Filing Processes, the XML Electronic Court Filing Standard is at Version 1.1 and has compatibility with the first two of the three other justice entities associated with criminal and traffic case processing.

At the time of publication of these standards, efforts are continuing to incorporate juvenile justice, corrections, and other federal entities into the dictionary and standards.

## General Content and Structure of the Technical XML Electronic Court Filing Standard

As of November 2002, the XML ECFS is a Document Type Definition (DTD) with the capability to support filings initiating cases and filings in existing cases, with a general structure of:

- A **Legal Envelope** for transmitting the case information and documents to the court
- **Data** about the document, case, and actors associated with case
- The **document itself** as a BLOB (binary large object) that can be submitted in any electronic form – an XML document, a PDF document, an image, a TIFF file, an ASCII file or a word processing document. Individual courts are expected to define the formats they will accept.

The general structure is shown in Figure 2 The ECFS does not require courts to maintain the legal envelope after submission, with the exception of the legal element and its children.[7] It is the legal element and its children that contain data specific to a court filing necessary for database population and data sharing among disparate courts and outside entities.

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[7] Under 2.1 Transmission Encapsulation in the ECFS: "The receiving application may discard all of the parent elements and any child elements of the legalEnvelope element, with the exception of the legal element and its children."

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The XML Electronic Court Filing Standard includes "tags" designed for all data elements needed by a court.  However, any court may choose to limit the data it will accept and the DTD also allows for extensions to allow for additional data needed by specific courts or case types.  There are instances of  "placeholders" for elements that will be defined  in the future, including a multitude of case types (such as administrative law, appeals, bankruptcy, civil, domestic relations, probate, small claims, traffic, juvenile, and criminal).  Detailed data elements are provided for describing identifying information and descriptors for people associated with a case – litigant, attorney, judge, probation officer, spouse, children, etc.  The level of abstraction in defining tags and elements is of a high order, to allow for the differences among courts.   Mapping[8] will be required between any existing court system and the XML ECFS tags.

The detailed ECFS DTD, specification, and justice specification from the reconciliation effort can be found at http://www.courtxml.org.



Figure 2 - General Structure of XML Electronic Court Filing Standard
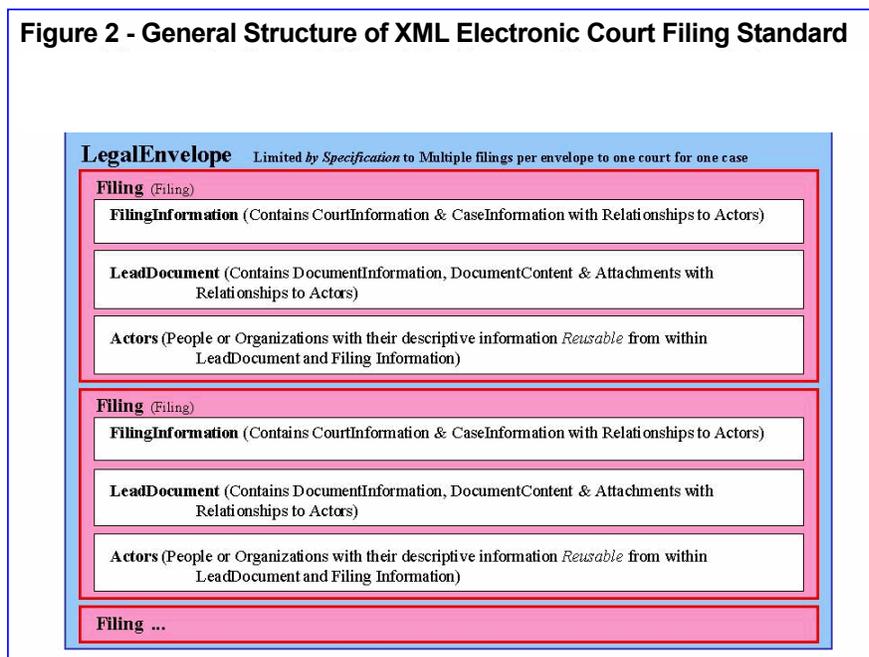
## Components Associated with the Electronic Court Filing Standard

The XML ECFS assumes an n-tier application model:

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[8]"Mapping" is the process of establishing equivalency between two data elements.  For example, "Last" in Application 1 is the same as "LSNM" in Application 2.

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- the client application (referred to in the XML ECFS standard as the Electronic Filing Service Provider (EFSP))
- a server or servers on the court's side (referred to in the XML ECFS standard as the Electronic Filing Manager (EFM))[9]
- the Case Management System (CMS) for the court.

The Electronic Filing Services Provider (EFSP) is generic terminology as described in the Glossary for the "front end" Internet browser application used by a filer to submit filings and related data, to make queries, and to receive responses. It may be developed or provided by a court, by a vendor, or by some other entity such as another justice entity. Throughout the Functional Standards, the terminology "front end application" will be used to minimize confusion about "service provider" implying that it must be provided by an entity outside of a court.

The XML ECFS standard itself does not specify the requirement for a Document Management System (DMS) at the court. Although this function may be performed within the CMS or an electronic filing application, the standard document management functions of indexing, document storage, and document retrieval must be handled by some portion of an overall complex of systems to support electronic filing. The terminology of "document management system" applies to these functions and not to the necessity for a separate application.

Several conceptual diagrams follow to explain the general flow of filings, queries, and standard components within the overall Conceptual Model of Electronic Court Filing:

- The general process for **submitting and accepting a filing** is shown on the first diagram of the Electronic Court Filing Conceptual Model, Figure 3 - Conceptual Model of Electronic Filing Process.

- The general process for **submitting a query and responding to a query** is shown on the second Conceptual Model, Figure 4.

The **current status of national standards for the components** of the Electronic Filing Process is shown in **Figure 5**.

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[9] The discussions of the EFM within this document do not incoporate physical architectures. The implementation of the EFM must include appropriate security considerations relative to the court's firewall. The EFM may be implemented with a portion of the EFM outside the court's firewall and a portion behind the court's firewall.

These diagrams are not intended to be technical architectural diagrams, and, therefore, do not address specifics of security, firewalls, or access controls among components. They are intended to provide a general introduction for readers to the concepts being promulgated through national standards efforts to guide courts in conceptualizing and acquiring electronic filing components. The components have been envisioned to allow severability among applications so that there is minimal disturbance to existing investments and systems -- courts need not replace their existing CMS in order to take advantage of electronic filing, nor is it necessary to acquire a single application for "cradle to grave" filing submission and full court processing. The concept is a "system of automated systems," each of which can provide a portion of the functionality needed for a cradle to grave electronic filing solution.

Readers are cautioned that as technical specifications become more firm, the acronyms (taken from the acronyms currently in use) and the specific purpose of each component may change. Readers planning implementations are, therefore, advised to rely on the technical details of current activities that can be found within the Legal XML member section of OASIS at http://www.OASIS-open.org/  for the most current technical details.
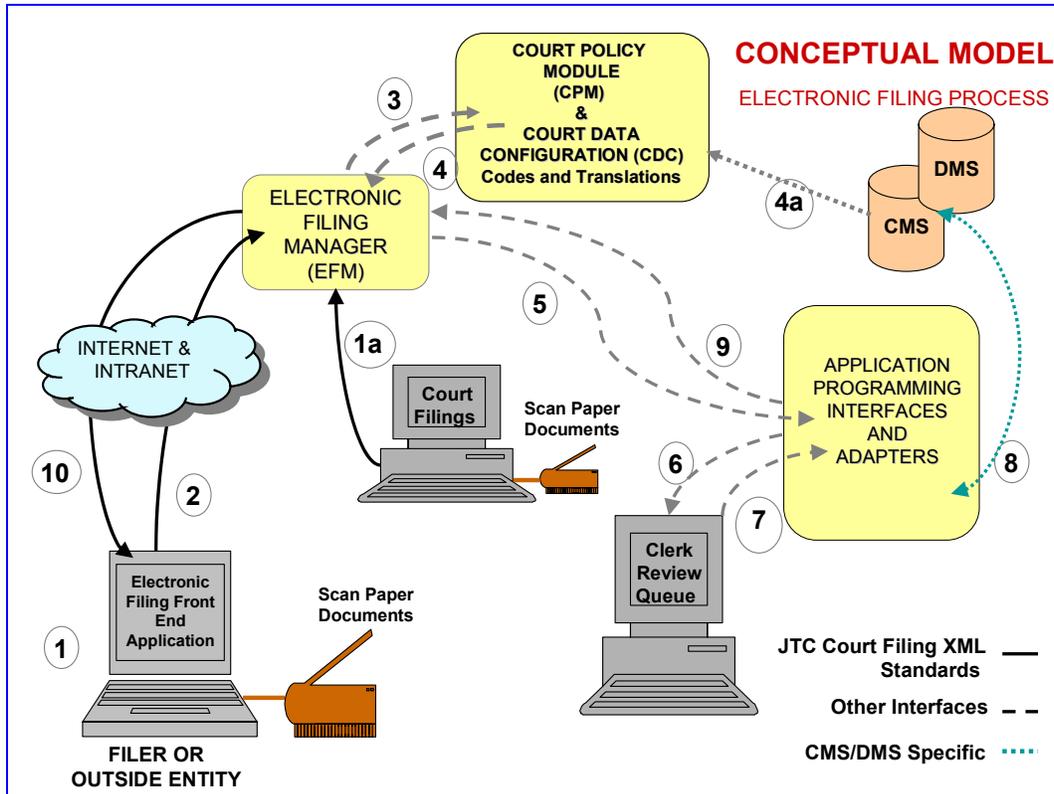
**Figure 3 - Conceptual Model of Electronic Filing Process**

## CONCEPTUAL MODEL – ELECTRONIC FILING PROCESS EXPLANATION

| | |
|---|---|
| **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. |

### Figure 4 - Conceptual Model of Query and Response
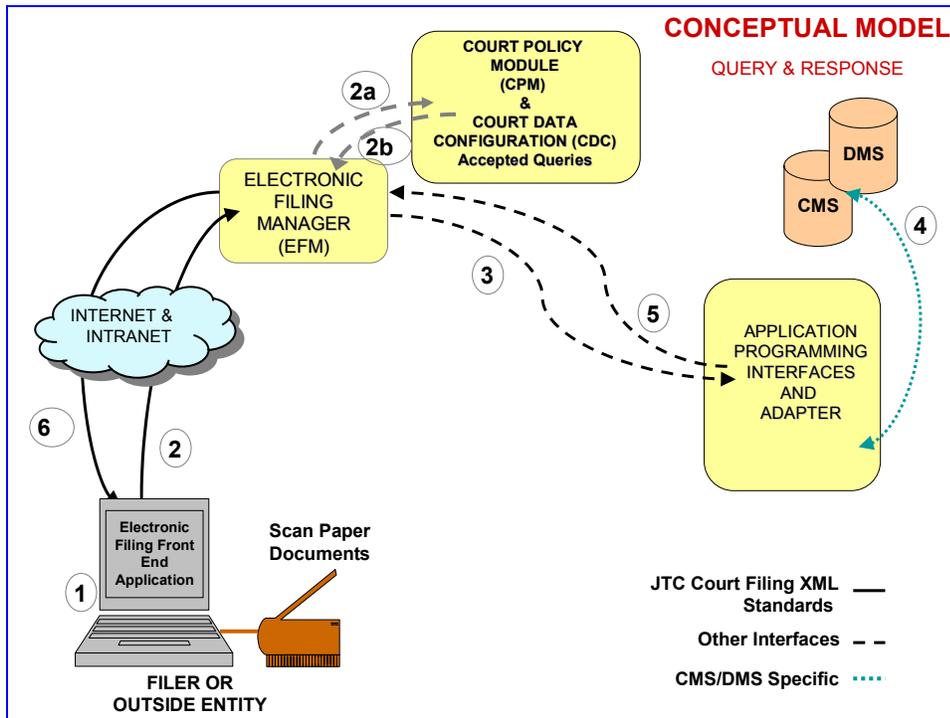


### CONCEPTUAL MODEL – QUERY AND RESPONSE EXPLANATION

| | |
|---|---|
| **1** | Case-specific queries will be accepted by the Front End Application that may be supplied by courts, by a vendor, or by an outside entity. |
| **2, 2a & 2b** | Queries will be sent to the Electronic Filing Manager (EFM). The EFM checks the Court Policy Module and the Court Data Configuration to ensure that the query is of a type acceptable to the court. This "checking" action against the CPM and CDC are planned to occur on a periodic basis rather than with each individual filing. The EFM will "inform" the Front End Application of these rules so that verification can occur prior to the query 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. |
| **3** | Queries are passed to the API and Adapters for "mapping" to the court-specific application requirements. |

| | |
|---|---|
| **4** | The Adapter sends the queries to the CMS and DMS that respond with data and/or documents back to the Adapter and the API. |
| **5** | The data and documents are passed back to the EFM. |
| **6** | The EFM passes the data and documents back to the Front End Application to respond to the query. |

## Figure 5 - Status of Standards as of November 2002
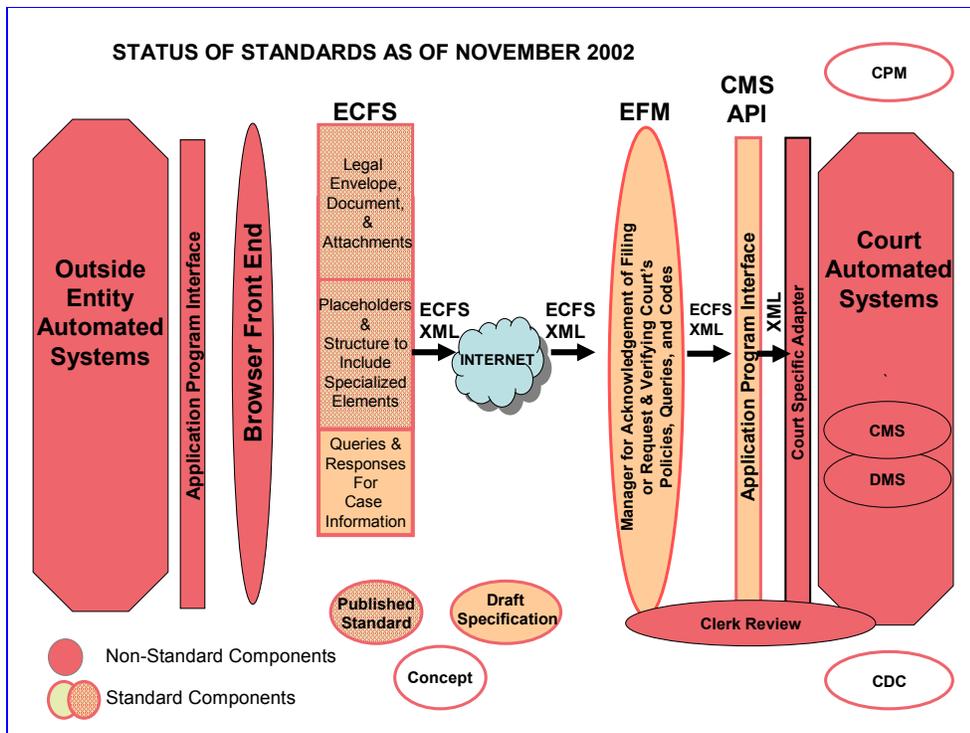


The status of the components involved in the Electronic Filing Process as of November 2002 is shown above. Published standards exist for ECFS XML and the OASIS Legal XML Member Section Electronic Court Filing Technical Committee. The OASIS Legal XML Member Section Electronic Court Filing Technical Committee has approved specifications for Query & Response and Court Document 1.1. Draft specifications exist

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for EFM, and the CMS API.  As of November 2002, conceptual design has occurred but requirements have not been formalized for Court Policy (CPM) or Court Data Configuration (CDC).

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# SECTION 3 – FUNCTIONAL STANDARDS

# 3    Functional Standards

These functional standards set forth the requirements for computer applications supporting electronic filing processes.  They specify the functions such systems must be able to perform, without defining how they are to perform them.  These functional standards define for courts and private sector vendors the content for systems supporting electronic filing processes, regardless of the court level or case type.  Other COSCA/NACM Functional Standards address the requirements for case management information systems for specific case types.

The Functional Standards are intended to provide guidance for courts and vendors in developing or choosing systems to support electronic filing processes.  The Functional Standards are structured so they may be used as an outline to develop design specifications or for issuance of a Request for Proposals.  Courts and vendors may choose a multitude of methods to implement the functional standards, but any system should be evaluated against the Functional Standards to ensure that it will meet a court's long term needs.

General and technical functional standards are presented first, and then to the maximum extent possible, the functional standards are presented in the general chronological order they need to be considered by a court during case processing.

## Organization of Functional Standards

Using the same format as other Functional Standards, the Commentary for each Functional Standards is followed by a Functionality Matrix with each of the subfunctions for the major Functional Standard.  For each subfunction, the first three columns of the Functionality Matrix indicate how the subfunctions should be evaluated by courts and vendors.

- "**Local Detail Needed**" indicates that adoption or implementation of the subfunction will require specific additional information about statutes, court rules, or procedures used within the court implementing an electronic filing process.  When using the matrix to develop standards or specifications for bids, the court must explicitly state the specific practices relevant to that court.

- "**Mandatory**" indicates that the subfunction is considered essential in any electronic filing system to support courts.  Vendors providing systems with the mandatory functions will be able to provide systems with broad applicability to courts.

- "**Optional**" means that the subfunction is desirable to support best practices, but may not be necessary in all courts or all situations.

For ease of use in preparing a solicitation or a design document, all Functional Standards and Subfunctions are included in Appendix 5, with a separate section of the appendix that includes only those subfunctions that require additional detail about specific local practices.

The Joint Standards Development Team and the Electronic Filing Standards Subcommittee spent considerable time identifying the relationships between the components of the XML-based electronic filing conceptual model described above and each subfunction.  That detail is not included in these standards because it would soon become dated as the XML architecture evolves.  However, they are available to any vendor of electronic filing applications or to any court wishing to have the information for use in developing a request for proposals.  Contact the reporters at bousquin@greacen.net.

## Functionality Matrix and Commentary

## 3.1 Functional Standard: General Court Standards

The sub-functions within the function of General Court Standards provide the foundation to accommodate the basic tenet that electronic filers will be able to file in different courts with a minimum of Front End Application modifications or changes to manual actions needed as they move from one court to another. To allow wide interoperability among systems, it is necessary that electronic filing systems respond to and provide a balance among:

- Conformance to standards that have been adopted by COSCA and NACM
- Electronic filing policies specific to the court, and
- Differing statutes and rules.

**Subfunction 3.1.1**   Standards that have been adopted by COSCA/NACM are "recommended" standards and are maintained by the National Center for State Courts on the web page (http://www.ncsc.dni.us/ncsc/ctp/htdocs/standards.htm). They may also be accessed from a link at the National Center for State Courts home page at http://www.ncsconline.org,

Courts and vendors developing electronic filing processes should pay close attention not only to standards already formally adopted by COSCA and NACM but also to standards being developed or revised. Technology and options for electronic filing processes are changing rapidly. The National Center for State Courts web site is a reliable source of information on such ongoing processes.

The requirement for flexibility to adapt to emerging COSC/NACM standards will be subject to evaluation by each court seeking to implement electronic filing. The intent is that the court or private vendor  implementing electronic filing maintain an adequate working knowledge of and currency with the mainstream technical directions  for electronic filing so that acquisition or development will be subject to minimal system re-writes in the near future to maintain interoperability with other electronic filing systems. Sufficient thought to currency and working knowledge of emerging standards should help protect a court against paying multiple times to revise its systems as each new idea is embraced as a national standard.

**Subfunction 3.1.2**   Each court has its own special document naming conventions, payment processes, and other requirements. Courts will need a way to describe their electronic filing procedures and policies. Legal XML envisions a Court Filing Policy XML Module that describes these court-specific rules in an XML format.

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**Subfunction 3.1.3**   The standard requires that systems be able to inform current users of changes in local court policies and requirements.  Standard 1.1G, Identity of the Sender, calls for courts to authenticate identities of more than filers and parties.  Each court will need to use its judgment in identifying and defining "current" users for the purpose of this subfunction to support Standard 1.1G.  If a court chooses to send messages to each user when policies change, it would be impractical and meaningless to inform parties with long closed cases.   In order for courts to inform users of policy changes, courts may wish to include a requirement that users keep the court informed of any changes in the filer's current e-mail address; this may be included in the court's electronic filing user registration procedures.  A notice on a web site or the initial Front End Application screen would also suffice to meet the intent of this subfunction.

| FUNCTION AND SUB-FUNCTION | Local Details Needed | Mandatory | Optional |
|---|---|---|---|
| **3.1  Functional Standard:  General Court Standards** | | | |
| **3.1.1**  **System conforms to existing COSCA/NACM standards and has the flexibility to adapt to emerging COSCA/NACM standards found at http://www.ncsc.dni.us.** | | X | |
| **3.1.2**  **System describes unique court filing policies and standards in an XML format, accessible free of charge by potential filers, including service providers.** | | X | |
| **3.1.3**  **System provides a process to inform current users of court policy changes relative to electronic filing.** | | X | |

## 3.2    Functional Standard: System Architecture

**Subfunction 3.2.1**   The only technical architectural requirement in this function is that the architecture must support XML data exchange.  XML data exchange is critical *from* electronic filers and *to* any other entities with which the court shares electronic documents (e.g., child support agencies).

XML (Extensible Markup Language) enables the transfer of data among automated systems that use different hardware, software, operating systems and applications.  It is the nationally accepted standard for both private and public sector information sharing, such as electronic filing.  XML inserts "tags" within a document or data stream to identify specific data elements.  Software at the receiving end of a transmission reads the XML tags and places the data received in the correct places within its specific database structure.  The standard tags for a particular transaction are set forth in a "specification" created according to rules prescribed by the World Wide Web Consortium (W3C).  The COSCA/NACM Joint Technology Committee has been working with the Legal XML Member Section of OASIS to develop specifications for the use of XML for electronic filing. The XML Electronic Court Filing Standard 1.0 (ECFS) was adopted by the COSCA/NACM Joint Technology Committee in March 2000 for experimental use in state courts and has been widely used by courts and vendors.  The Georgia Courts Automation Commission has conducted a successful test of the specification's interoperability.  The Joint Technology Committee adopted a successor version, Electronic Court Filing XML 1.1 Specification, as a proposed standard in July 2002.  Standards for Query and Response and Court Document 1.1 have been approved by the OASIS Legal XML Member Section Electronic Court Filing Technical Committee.

The XML ECFS specifies that multiple filings may be included in a single envelope, so long as they pertain to a single case in a single court.  It recognizes that a filing consists of a lead document and all attachments to that document.  Such specifics are not repeated within these Functional Standards, and courts must look to the ECFS standards themselves for specifics.  The limitation imposed by the XML specification on what may be contained within a single envelope does not prevent an attorney from complying with procedural requirements to file documents simultaneously in multiple courts (e.g., filing a notice of appeal in both the trial and appellate courts).  It merely requires that such filings take place in separate electronic filing package transactions.  An electronic filing application could make this process appear seamless to the filing attorney.

In general, the sub-functions in this section address overall best practices for any automated system.

**Subfunction 3.2.2**   Migration strategies should be an integral part of any system design, to ensure that the court is subjected to minimal manual intervention and data transformation for any new release.   With electronic filing systems, this may include transitions to new file formats allowed in filings, and courts should include language in contracts and licenses to ensure easy and prompt migration to new releases of XML standards.

**Subfunction 3.2.3**   In many instances, systems are designed to easily accommodate individual case transactions, but may be cumbersome for "mass" transactions such as large numbers of debt collection complaints, child support enforcement petitions, or traffic tickets.  Although each court will need to assess the impact on its network for such high volume transactions and may need to limit the times or processes for them, courts should consider purchasing only systems that allow for such high volume filers or mass filings in

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order to ensure that neither the court nor the filer is overburdened by repetitive data entry or verification.

**Subfunction 3.2.4**   Disaster recovery and rollback capabilities to a prior state will vary depending on the technical architecture, redundancy, and volume that exists in any court or system and the court's assessment of its risks and liabilities   This is shown as a local detail requirement, and each court must assess its own needs for mirroring all submissions, rolling back to its last backup and data replication methods, to notify, and/or to require re-entry of everything from that backup point by the filer or by court staff.  Given the policy expressed in Standard 1.1A (**Official Court Record**) -- that the electronic document will be the official court record -- courts are urged to consider changes to their pre-electronic filing disaster recovery and rollback needs carefully.  There may be no paper record on which they can rely for re-creation of documents in the case of a catastrophic failure.

Therefore, a greater level of redundancy may be called for than would be necessary with a pre-electronic filing case management system that reflects entries from source documents that can be re-entered, albeit with great manual effort.  Courts are urged to consider their risks carefully before they dismiss the initial capital outlay required for mirroring or some other high redundancy fail safe option.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|:---:|:---:|:---:|
| **3.2  Functional Standard: System Architecture** | | | |
| **3.2.1      System architecture supports XML data exchange in accordance with standards adopted by COSCA and NACM.** | | X | |
| **3.2.2      System architecture incorporates migration strategies for new releases of XML standards** | | X | |
| **3.2.3      System architecture provides capabilities for high volume filers to transfer large numbers of documents, attachments and envelopes at one time ("mass filing").** | | X | |
| **3.2.4      System has disaster recovery and rollback capabilities consistent with court needs and policy.** | X | X | |

## 3.3    Functional Standard:  Electronic Documents

This function incorporates general standards and understandings applying to all documents, during all stages of court processing.

**Subfunction 3.3.1    Standard 1.2C**, **Determining when a Document is Filed**, requires courts to define the terms and processes they use to determine when a document is deemed "received", "filed," "served," and "entered on the docket or register of actions." To support such local definitions, systems must be able to capture and record the date and time documents are transmitted to and received at each step of the process from the moment they leave a filer's computer to the time they are entered on the court's docket or register of actions.  In any particular implementation, only some of these dates and times may be needed in an individual court.  However, a system to support the multiplicity of courts must have the structures and capabilities to support the maximum permutations. Only those dates and times relevant to the court need to be displayed in a specific implementation.

**Subfunction 3.3.2**   There will always be documents not created electronically that must be made part of the electronic record (e.g., attachments to a complaint or affidavit). Therefore provision must always exist for importing paper documents into the electronic court record.  In addition, systems must be able to accommodate transcripts, multimedia presentations, and other evidence introduced in the course of a trial or hearing.  It is understood that physical objects, such as contraband, weapons, and clothing, cannot be incorporated into an electronic record with current technology (although images may appear in the record.)

**Subfunction 3.3.3**   This subfunction requires that systems be able to handle electronic materials such as transcripts, multimedia presentations, and exhibits.  It is understood that current case management systems, document management systems, and XML standards may not currently include specific definitions for these additional electronic materials.

**Subfunction 3.3.4**   Given the variety of implementations that may occur, it is possible that multiple electronic filing front end systems may be used, but all documents associated with the case and filed through any of the front end systems must be viewable as a single electronic record.  The system must be capable of displaying documents in all formats allowed by the court, maintaining the integrity of the content and format of every document.  Standard 1.3G (**Integration with Case Management and Document Management Systems**) requires a single index based on the case management information system for all documents, regardless of their physical location.

**Subfunction 3.3.5** Although courts may have varying methods for producing paper copies of records, particularly for certified copies, each electronic filing system must be capable of producing a paper record on demand.  It is understood that courts may charge

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for paper copies and certified copies, and the need to continue to collect these charges may limit the viewing or printing capabilities allowed by the court.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **0** <br><br> **Functional Standard:  Electronic Documents** | | | |
| **3.3.1**    **System records all dates and times needed to apply court rules governing the time and date that court filing occurs and informs filer of the data and time of filing** | **X** | **X** | |
| **3.3.2**    **System accepts the importation of non-electronic documents into the electronic court record in accordance with statutes and rules.** | **X** | **X** | |
| **3.3.3**    **System provides a method for handling other electronic materials involved in a case, including, e.g., transcript, exhibits, and multimedia presentations made to the jury.** | **X** | | **X** |
| **3.3.4**    **System presents the documents in the electronic formats allowed by the court.** | **X** | **X** | |
| **3.3.5**    **System will produce copies on demand.** | **X** | **X** | |

## 3.4    Functional Standard:  Document Integrity

**Subfunction 3.4.1**   Function 3.2 Functional Standard: System Architecture addressed overall integrity and redundancy of the system architecture.  However, courts are responsible for ensuring that the electronic filing system also addresses the integrity of each and every document submitted.  The court must be certain the document submitted is the same as the document received and stored by the court.  At a minimum, Standard 1.1H requires the use of the Secure Hash Algorithm (SHA) consistent with FIPS 180-2 for this purpose.  The resulting hash must be returned with each acknowledgement as set forth in the sub-function below.  The court may require that the front-end provider use the same hash algorithm and perform a check after the receipt is received to provide protection against write errors.  Some courts may optionally maintain detailed transaction logs for each transaction.  Courts must not be satisfied with simple comparisons of file sizes or byte counts.  Courts are cautioned to secure their hash files to ensure they can verify the integrity of their stored documents, as discussed in Standard 1.1H.

**Subfunction 3.4.2**   Document redundancy is addressed in this subfunction.  The system used must incorporate controls to ensure that a catastrophic failure of a single system or system element does not result in loss of the sole copy of a document that is part of the court record.

**Subfunction 3.4.3**   Systems must return a hash for a filed document with the acknowledgement of filing of that document.  They must also maintain a history of all hashes associated with a document.

**Subfunction 3.4.4**   Although this subfunction requires a minimum, courts are urged to maintain awareness of current Federal Information Processing Standards (FIPS) promulgated by the National Institute of Standards and Technology (NIST).  They may choose to adopt even more stringent protections than those provided in FIPS 180-2 and its successors.  (http://www.itl.nist.gov/)

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.4  Functional Standard:  Document Integrity** | | | |
| **3.4.1    System provides a means to verify the integrity of any electronic document received and stored by the court.** | X | X | |
| **3.4.2    System provides document redundancy.** | | X | |
| **3.4.3    Hash algorithms must be provided within receipt and the system must provide a document history of hashes.** | | X | |
| **3.4.4    At a minimum, system must comply with FIPS 180-2 or successors. (http://www.itl.nist.gov/fipspubs/fip180-2.htm).** | | X | |

## 3.5    Functional Standard:  System Security

**Subfunction 3.5.1**  Overall system security is tightly coupled with the Functional Standards 3.2 and 3.4, (Functional Standard: System Architecture and Functional Standard:  Document Integrity).  Each court must decide the levels of security and overhead for transaction and audit logs it wishes to require for electronic filing submissions.  Courts are cautioned to revisit their security requirements since the requirement that the electronic record is the official record may place a higher burden than currently exists for case management systems where source documents can be used for recovery from catastrophic failures.

**Subfunction 3.5.2**  Audit logs for transactions are called for, as appropriate to the court's needs.  While courts may not believe it necessary to add the overhead of before and after images or detailed data element transaction logs, courts are urged to consider at a minimum logs of entries into their portals or logs of their authentication of user access for filing.

**Subfunction 3.5.3**  Each court will specify its own requirements for automatic removal of security and privileges such as log-ons and passwords for filers and court staff.  Requirements might include such policies as automatic nullification of log-ons and passwords when appeal notification periods have passed without an appeal, or removal of access privileges to confidential documents upon case closing.  Systems must support such security features.

Although the systems must allow the court to maintain control of security and privileges, it is not intended that the system require that a court staff person physically make these changes.  Implementations are possible where the court gives that task to a vendor, with procedures for court verification and monitoring.  However a vendor-provided system must be able to vest that authority in court staff if the court so chooses.

**Subfunction 3.5.4**  The lengthiest requirement within this function addresses the need for court control of user privileges associated with creation, modification, printing and reading of electronic records based on privilege levels.  Courts are cautioned to consider the relevance of specific examples of types of groups very carefully – these groups may not be relevant to a specific court or additional groups may exist that have particular importance to a court's unique jurisdiction or venue.

Courts should also note that both printing and reading are functions specified within control of privilege, but would not necessarily be relevant if the court chooses to provide fully open access for reading and printing of non-confidential documents or cases.  However, court revenues may be attached to document copying and the court may wish to require incorporation of a payment requirement for printing.  Reading of certain classes of documents, such as sealed documents, may be restricted as well.

**Subfunction 3.5.5**  For both the Legal Envelope within the XML ECFS and the document contained within the Legal Envelope, each system must provide common and

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robust virus checking practices, with notification to the filer of any identified virus before any actual submission to the court of any electronic filing.   Virus checking of both the Legal Envelope and document is required both at the front end and upon receipt by the court.  Courts should be aware that the nature of viruses is that new and unidentified viruses may pass virus checking.  Courts may wish to specify the variety of virus checkers that they consider acceptable and require periodic verification of updates through the Court Policy Module or CDC.

**Subfunction 3.5.6**   There are no specific requirements for compliance with standards for encryption or security in this function, with the exception of HTTPS and SSL.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.5**<br><br>**Functional Standard:  System Security** | | | |
| **3.5.1**      **System transmissions are secure.** | X | X | |
| **3.5.2**      **System provides an audit log of transactions as appropriate to the court's needs.** | X | X | |
| **3.5.3**      **System must provide that appropriate court staff have control of assignment and revocation of security levels and privileges** | X | X | |
| **3.5.4**      **System provides appropriate processes for court staff to control user privileges to create, modify, delete, print, or read electronic records.**<br><br>For example, groups with differing privileges and security levels might be:<br>    **(a)** Attorneys and self-represented litigants for the duration of the case<br>    **(b)** Parties with the exception of attorneys and self-rep litigants<br>    **(c)** Court staff within the court of filing, including<br>    **(d)** Judges<br>    **(e)** Judicial staff<br>    **(f)** Clerks<br>    **(g)** Administrative staff<br>    **(h)** Court staff elsewhere in judiciary<br>    **(i)** Judges<br>    **(j)** Judicial staff<br>    **(k)** Clerks<br>    **(l)** Administrative staff within the court or within the Administrative Office of the Courts<br>    **(m)** Systems maintenance staff<br>    **(n)** Groups/Classes of People<br>    **(o)** Justice agency staff, by specified agency<br>    **(p)** Treatment/program staff, by specified | X | X | |

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| agency/group<br>**(q)** Abstractors, title searchers, credit reporting services, and employment background checkers<br>**(r)** Other<br>**(s)** Media<br>**(t)** General public not involved in the case | | | |
| **3.5.5**     The "Legal Envelope" and the document must both have state-of-the-art and robust virus checking applied prior to transmission to the court and upon receipt of the transmission at the court. | | X | |
| **3.5.6**     System complies with generally accepted security protocols, including use of HTTPS and secure socket layer (SSL). | | X | |

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## 3.6 Functional Standard: Signatures and Authentication

**Subfunction 3.6.1** This function addresses mandatory requirements for authentication of filers, documents, and judicial officer actions. Any system must support state statute and rule requirements.

**Subfunction 3.6.2** For a general discussion of the various options courts may use for identifying the sender of a document and for authenticating a document, see commentary to Standards Standard 1.1E, Standard 1.3B, and Standard 1.3F.

**Subfunction 3.6.3** With an electronic court record, the judicial officer official decision and action is recorded only within the electronic record. These standards do not explicitly call for a different method of authentication for judges than would be required of other filers. However, courts are cautioned that the burden is significant to provide strong safeguards to ensure that only judicial officers can authorize orders and official judicial actions, that any modifications are properly audited and tracked, and that both the public and litigants are confident of the technical integrity of judicial actions recorded electronically.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.6 Functional Standard:  Signatures and Authentication** | | | |
| **3.6.1** **System complies with statutes and rules for authentication of electronic documents.** | X | X | |
| **3.6.2** **System provides authentication of filer identity in accordance with court policies.** | X | X | |
| **3.6.3** **System provides a method of authenticating judicial officer actions** | X | X | |

## 3.7    Functional Standard:  Case and Document Confidentiality

"Confidentiality" in this function is intended to incorporate the myriad words (e.g., sequestered, sealed, confidential, restricted) that may be used in any court to designate limited viewing of cases or documents or data.  The variety and continuum of access restrictions is long, in some circumstances meaning only that there is no public viewing and in others meaning there may also be no method to know that a case or document exists or existed (except by very limited court personnel).

This function and its subfunctions are intended to address all permutations of case and document confidentiality, but the function *does not* address the confidentiality of specific data fields (e.g., address of victim) that may exist within filed documents.  Courts and vendors should refer to Public Access to Court Records: Guidelines for Policy Development by State Courts (www.courtaccess.org/modelpolicy) for guidance and discussion on such matters.

The standards do not endorse, anticipate or require redaction of individual data fields within documents.  If there is a local requirement for confidentiality of such individual data elements, the court should ensure this by other means, such as by confidentiality of the entire electronic document or by extending the local detail to include the capability of such redaction.

In all instances, courts are urged to exercise caution to ensure that responses to both pre-defined and ad hoc queries provide verification of access authority based on confidentiality conditions before returning a response.  This may require the court to implement security provisions beyond those provided directly by any electronic filing system, particularly if the court's existing case management system invokes only application level security for retrievals made through the CMS.

**Subfunction 3.7.1**   This function calls for provisional confidentiality upon filing at the request of the filer, awaiting a subsequent decision to be made by the court.  Until the court has made its determination, the electronic filing system should provide that the document is not viewable by persons other than those allowed by rule or statute or local practice.

**Subfunction 3.7.2**   The system must also allow for the possibility that confidentiality status may change as the case progresses.  For example, a document that was confidential may become public. In some instances, litigants may have unfettered access via the Internet to confidential documents until the case is closed and, thereafter, cannot have access to confidential documents via the Internet.

**Subfunction 3.7.3**   The Functional Standards recognize that handling of confidentiality in a generic way for courts is difficult, given the wide variety of contexts, rules and statutes that bound it.   Case, document, and data confidentiality are driven by state law and court rules and individual determinations based on request.  Explicit generic requirements

cannot be created to cover the details of all types of confidentiality.   The Functional Standards have attempted to identify the discrete circumstances when confidentiality is invoked.  It may be based on:

- case nature (e.g., adoptions),
- document content or type (e.g., treatment information in pre-sentence reports),
- data (e.g., witness or complainant names or addresses in protective orders),
- case stage (e.g., orders regarding judgments), or
- specific people seeking access to information (e.g., a child may have access to an identity in a paternity determination but no one else may see it).

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.7     Functional Standard:     Case   and   Document Confidentiality** | | | |
| **3.7.1     System provides provisional confidentiality until a determination on confidentiality is made by the court** | X | X | |
| **3.7.2     System allows for changes of confidentiality status for documents or the case during the life of the case.** | X | X | |
| **3.7.3     Based on the nature of the document and the nature of case, system provides automatic confidentiality at the time of electronic document filing in accordance with statutes and rules or court orders.** | X | X | |

## 3.8    Functional Standard:  Acceptance and Rejection of Filings

**Subfunction 3.8.1**   Standard 1.2E requires a court to create a mechanism for resolving disputes arising from the operation of an electronic filing system.  This functional standard requires front end applications to make a record of a filer's attempt to file or otherwise maintain attempted filings in a queue for later processing when the accepting system is down.

**Subfunction 3.8.2**   Whenever any acceptance or rejection occurs, it is a mandatory requirement that the system provide the filer with information on the acceptance or rejection.  A simple electronic receipt would comply, with an indication of acceptance, as would a similar electronic rejection receipt showing the reasons for rejection.   The commentary to **Standard 1.1H** (**Integrity of Transmitted and Filed Documents and Data**) recommends that the receipt include the document hash as part of maintaining document integrity.

**Subfunction 3.8.3**   This function addresses whether submissions for filing (equivalent to handing papers over the counter) are rejected or accepted by the court's electronic filing system by use of automated functions without any clerk intervention.  **Standard 1.2C** (**Determining when a Document is** Filed)  requires a court to define the terms and processes it uses in accepting documents for filing.  See the commentary to that standard and to Standard 1.3E for discussion of this topic.

**Subfunction 3.8.4**   Standard 1.1E requires filed documents to be self-contained, with links allowed only to other documents submitted simultaneously or already in the court record.  In order for filers to have easy knowledge of the address for the document, the system is required to return the document address with the acknowledgement of the filing.  Court's are cautioned that it will be incumbent upon them to ensure that any changes to the domain or web server include references to allow continued access to documents with the original address provided to the filer.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.8** **Functional Standard: Acceptance and Rejection of Filings** | | | |
| **3.8.1** **Front End Application is able to support the court's policy on filing when the court's accepting system is down.** | X | X | |
| **3.8.2** **System informs the filer of the acceptance or rejection. The receipt must include the reasons for rejection and document hash.** | X | X | |
| **3.8.3** **System supports automated acceptance and rejections of filings and documents in accordance with the form and substance requirements of the court.** | X | X | |
| **3.8.4** **Acknowledgements of filings must include an address by which the document can be accessed for the purpose of linking it to subsequent filings in the same case.** | X | X | |

## 3.9    Functional Standard:  User and Service Registration

**Subfunction 3.9.1**  This subfunction is made optional.  Standard 1.1G (Identity of the Sender)  requires that a court use some means to identify persons interacting with its system.  But it does not require the use of a registry of users and their identifiers.

**Subfunction 3.9.2**  Even though XML Web Services is a developing technology (at the time of this writing, the UDDI registry for court e-Government does not exist), web services currently represent a method to attain the interoperability needed for electronic filing.  Web Services describes the technology that will allow a web application to search and discover (i.e., find when needed) courts who allow the use of XML to exchange information. The application can then locate a description of the XML web service at the location with whom they are attempting to communicate. The primary registry for this web service is UDDI (Universal Description, Discovery, and Integration).

UDDI provides a way for courts to "advertise" and for applications to find out about web services, such as web-based electronic court filing.  UDDI registries will be maintained on the web to let all sorts of businesses advertise their web services in a way that systems can automatically search for and find them.

A UDDI registry is very similar to a phone book, but it is a phone book for XML web services. The service will consist of:

- **White Pages** contain information such as the name of the court or attorney, contact information, and a human readable description of the firm or agency.

- **Yellow Pages** contain information that will classify the court, attorney or agency.

- **Green Pages** contain technical information about the XML service that the court, attorney or agency supports.

It is beyond the scope of these standards to assign responsibility for the development of such a registry or to further specify how it would operate.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.9  Functional Standard:  User and Service Registration** | | | |
| **3.9.1    System maintains a register of authorized users and identifiers. System supports registration/authorization process for submission of electronic court filings by:**<br><br>    (a)  attorneys<br>    (b)  self-represented litigants<br>    (c)  court personnel<br>    (d)  other agencies,<br>    (e)  other authorized users | X | | X |
| **3.9.2    A registry of web services must be provided by the system for integration, e.g. UDDI.** | X | | X |

## 3.10 Functional Standard:  Court Payments

**Subfunction 3.10.1**   This function addresses any payment made to the court in conjunction with the electronic filing system.  Depending on the court and electronic filing service provider, this may include filing fees, access fees, or other payments due to the court.     Standard 1.1l (**Electronic Acceptance of Payments**) requires courts to accept payment of fees electronically.  The commentary to that standard discusses alternatives to support that function.

Courts have complex allocation and distribution requirements for monies received by the court; these are not within the purview of the Standards for Electronic Filing Processes since they are internal court functions that do not generally affect filers.  Courts should incorporate any requirements for detailed financial processing within the CMS and not within an electronic filing procurement or design.  The limit of payments within an electronic filing system should be solely for relaying any electronically submitted funds to the court or its agent, with the case details necessary for subsequent allocation, distribution, and accounting by the court or its agent.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.10  Functional Standard:  Court Payments** | | | |
| **3.10.1     System accommodates payments in accordance with statutes and rules.** | X | X | |

## 3.11  Functional Standard:  Submission of All Filings

Courts may choose or may be required because of statutes, rules, or jurisdiction to implement separate procedures and electronic filing requirements for initial case opening and subsequent filings.  To assist courts in differentiating their requirements for initial case opening and subsequent filings, these functional standards include three separate functions:

- Submission of All Filings, subfunctions applicable to all filings
- Case Opening Filings, subfunctions specific to new cases, and
- Subsequent Case Filings, subfunctions for existing cases.

**Subfunction 3.11.1**   For all filings, the electronic filing front end should have the ability to "hold" a submission so that re-entry is not needed by the filer if the receiving system is not operational.  Other issues relating to court determination of or revising the filing time and date – based on technical failures – are discussed in Standard 1.2E.

**Subfunction 3.11.2**   This Functional Standard requires that systems provide error checking capabilities at the front end so that filers have the maximum opportunity for quality control on their filings and to reduce the likelihood that a filing will be rejected by the court.  See commentary to **Standard 1.2C** (**Determining when a Document is Filed**).  With the Conceptual Model's focus on making court policies and translation codes available to the front end providers, it is desirable that such error checking be done at its source of entry to avoid rejection when the filing reaches the court.

**Subfunction 3.11.3**  Correction messages are required to tell the filer what the error is and how to correct it.

**Subfunction 3.11.4**   Every filing must have a unique identifier for tracking and accessing its contents as well as for auditing and recovery purposes.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.11  Functional Standard:  Submission of All Filings** | | | |
| **3.11.1**  **If the court's case management system is not operational, the front end electronic filing system sends a message immediately to the filer and holds the filing for submission when the court's system is operational.** | X | | X |
| **3.11.2**  **Front end system validates case number, filing parties, case types, document types, and other elements required for populating the court's database.** | X | X | |
| **3.11.3**  **Front end system provides error messages and correction options if the filing is not in accordance with court policies, codes, and requirements including case openings.** | X | X | |
| **3.11.4**  **System assigns and confirms a unique identifier for each filing** | X | X | |

## 3.12  Functional Standard:  Case Opening Filings

**Subfunction 3.12.1**  When a filing initiates a new case, it is necessary that the filer immediately have a unique identifier for the case by which the case and documents can be tracked, both before and after a permanent case number is assigned by the court. This system requirement is mandatory, but specifics of implementation are up to the court.  Some courts may choose to delay permanent number assignment until after review of the filing by a clerk, and others may wish to assign a permanent number immediately, particularly those courts where a clerk review is not necessary prior to submission of the filing to the court's database.

**Subfunction 3.12.2**  Although many courts may choose to allow case creation within its database only after a clerk has reviewed the filing, the option of allowing opening of cases without requiring clerk review is included for the future when electronic filing is standard procedure and for mass filings.  While the court may choose not to allow this option initially upon implementing electronic filing or may always prohibit it for certain case types or conditions, any fully operational electronic filing system should be prepared to allow case creation without clerk review.

**Subfunction 3.12.3**  The system should be able not only to open a new case automatically, but also to create the docket entry for the initial filing automatically.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.12  Functional Standard:  Case Opening Filings** | | | |
| **3.12.1**  **System assigns a unique case identifier until assignment of a permanent case number by the court.** | **X** | **X** | |
| **3.12.2**  **System allows automated initiation of new cases without requiring submission of the case to the clerk review queue.** | **X** | | **X** |
| **3.12.3**  **System supports automated docket entries for initial filings without clerk review.** | **X** | | **X** |

## 3.13  Functional Standard:  Subsequent Case Filings

**Subfunction 3.13.1**  In general, subsequent case filings are less technically burdensome than case openings  -- they most often do not include filing fees, essential parties are already identified, and case number assignment has already occurred. Therefore, while courts may choose not to allow case opening without clerk review, they may elect to allow subsequent case filings without clerk review.

Again, the option of allowing subsequent case filings without requiring clerk review is included for the future when it is likely that courts will implement it more quickly than they will for initial case filings.   Implementation of edits and verification within the components identified in the Conceptual Model may be sophisticated enough that the Court Clerk is initially more comfortable that automated error checking will suffice for subsequent filings.

**Subfunction 3.13.2**  This subfunction clarifies that the system will be capable of accepting documents automatically without submitting them to the clerk review queue.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.13  Functional Standard:  Subsequent Case Filings** | | | |
| **3.13.1** **System supports automated docket entries for subsequent filings without clerk review.** | X | | X |
| **3.13.2** **System allows automated receipt of subsequent filings without requiring submission of the case to the clerk review queue.** | X | | X |

## 3.14  Functional Standard:  Service and Notice

**Subfunction 3.14.1**  It is optional for each electronic filing system to provide for electronic notice and service.  When a court opts for this functionality, the system must provide a proof of service record and a record of who is served electronically and who must still be served traditionally. (See   Standard 1.2A **Service of Filings on Opposing Parties**).

**Subfunction 3.14.2**  An automatic noticesystem must provide a lawyer or party with the information needed to serve persons not participating in the electronic filing process by conventional means.  That may be a list of the persons served electronically, or alternatively, a list of those not served electronically.

**Subfunction 3.14.3**  The standard requires that an automatic notice system automatically create and docket a certificate of service in the court's case management information system, replacing the traditional certificate of service filed by an attorney or party.  This entry would include the names of the persons to whom copies of an electronic document were sent electronically, their electronic addresses, a description of the document sent, and the date and time of transmission.   A record maintained only within a separate e-mail system would not allow the record of service to be retrieved with the rest of the electronic court record; therefore, an e-mail record alone would not meet the standard.

| FUNCTION AND SUB-FUNCTION | Local Details Needed | Mandatory | Optional |
|---|---|---|---|
| **3.14 Functional Standard:  Service and Notice** | | | |
| **3.14..1 System electronically serves documents and notice to other parties participating in the electronic filing system, in accordance with statutes and rules** | **X** | | **X** |
| **3.14.2 System generates a record of the non-electronic filing parties to whom service must be provided** | **X** | | **X** |
| **3.14.3 System automatically creates and dockets in the court's case management system a certificate of service for the document served.** | **X** | | **X** |

## 3.15  Functional Standard:  Judicial Consideration of Drafts

The functionality called for below may be provided by an ancillary system and need not be part of the electronic filing system.  However, regardless of the manner in which the functions are provided, they are included in the *Standards for Electronic Filing Processes* because accepting draft documents is an essential part of document processing.  Draft documents will require different processes than those used for final documents filed electronically to ensure that they are not available for general viewing.

**Subfunctions 3.15.1 and 3.15.2**  Procedures for processing proposed documents (e.g., orders, jury instructions) submitted to a court vary widely.  Some courts require attachment of a proposed order to every motion submitted.   In other courts, proposed orders are submitted only upon request of a judge.  Some courts enter the submission of a proposed order or other proposed documents from an attorney within their registers of actions.  Other courts make no official record of the proposed order until it has been reviewed and approved by the judicial officer.  The review process may involve return of the proposed order to the attorney for revision and submission of a final order.

This function and all its subfunctions are optional to allow for the variance among courts.  However, it is suggested that courts will need to adopt an electronic method for this function to ensure that the electronic court record is the official record.

Care must be taken by a court and electronic filing system in implementing receipt and review of proposed orders to ensure that they are not viewable generally and that viewers internal to and external to the court cannot be confused that a proposed document is a final court document approved by the court.  It is suggested that this might easily be accomplished by limiting access to proposed documents solely to court personnel and parties to the case.

**Subfunctions 3.15.3 and 3.15.4**  Some courts may use e-mail as the manner of submitting and returning proposed orders.   However, if this method is used, the court must exercise caution that the court record contains an indication that there was official notification to all parties of proposed order submission and return.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.15 Functional Standard: Judicial Consideration of Drafts** | | | |
| **3.15.1 System provides a method for parties to transmit proposed orders and other proposed materials to judicial officers for consideration, with or without docketing the event and committing the document and data to the database.** | X | | X |
| **3.15.2 System provides a method for the judicial officer to return a modified proposed document to the sending parties with or without docketing the event and committing the data to the database.** | X | | X |
| **3.15.3 System provides automatic notice to all parties when filer sends a proposed order to a judicial officer for consideration.** | X | | X |
| **3.15.4 System provides automatic notice to all parties when the judicial officer returns a modified proposed document to the sending parties.** | X | | X |

## 3.16  Functional Standard:  Clerk Review

Clerk review of electronically filed documents and cases is analogous to a clerk's review of manual filings submitted across the counter.  Statutes, rules, and procedures differ widely, with some courts allowing all filings regardless of errors and other courts rejecting filings with errors or notifying filers of errors and allowing them to re-submit corrected filings.

**Subfunction 3.16.1**   Clerk review of documents filed electronically is an essential part of quality assurance for many courts prior to committing data entered by filers to the court's database.  The clerk review function or clerk review queue must be fully supported by any electronic filing system, although a specific court may choose not to require its use for particular case types, mass filings, or under other conditions.  If automated acceptance and docketing of filings occurs, as allowed by Functional Standards 3.12 and 3.13, the system must provide a way to "turn off" the clerk review functionality.

**Subfunction 3.16.2**   To support courts that notify filers of defects in filings, this subfunction requires a method of communicating such defects.  E-mail will satisfy this requirement.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.16 Functional Standard:  Clerk Review** | | | |
| **3.16.1     System provides for review of data and documents by court staff prior to inclusion in the court record based on local procedures and rules.** | **X** | **X** | |
| **3.16.2     If the filer must take additional action after clerk review, the system provides a method for the clerk to send notice to the filer.** | **X** | **X** | |

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## 3.17  Functional Standard:  Court Initiated Filings

**Subfunction 3.17.1**   The terminology "court initiated filings" indicates any actions the court may take which are entered into the electronic court record (e.g., orders, trial notices, etc.)  Many case management systems already automatically produce documents for court issuance and signature.  Courts considering electronic filing implementations should be aware that there may be conflicts and redundant clerk effort if the case management system does not produce documents that can be included as part of the electronic court record automatically.  For example, if the CMS produces documents or forms only in hard copy word processing format, they may need to be scanned by court personnel for inclusion into the electronic record.  This may require that these documents be filed by the court using much the same process used by external filers.   A more desirable method would be for the CMS to create documents in formats acceptable by the court as electronic filings.

It is a mandatory subfunction for electronic filing systems to accept filings initiated by court personnel and judicial officers.  Electronic filing systems should incorporate methods that take advantage of the information contained in the CMS to avoid duplicative data entry effort by court staff in creating such documents.

**Subfunction 3.17.2**   The system must automatically inform all parties of the filing of court initiated documents just as it informs all participants of filings by parties.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.17  Functional Standard:  Court Initiated Filings** | | | |
| **3.17.1      System allows for court judicial officers and court staff to initiate actions as filings.** | X | X | |
| **3.17.2      System informs parties of court initiated filings.** | | X | |

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## 3.18  Functional Standard:  Requests for and Responses to Requests for Case Information

Requests for documents and case related information and responses to such requests are essential components of a fully functioning electronic filing system.   This function addresses the requirements for performing those functions.

**Subfunction 3.18.1**   In order to support interoperability, all systems must comply with COSCA/NACM standards for supporting XML-based query and response processes.  A Query & Response XML DTD and Specification has been approved by the Electronic Court Filing Technical Committee of the OASIS Legal XML Member Section.

**Subfunction 3.18.2**   Because of the overall intent for interoperability, it is assumed that there will be multiple front end providers accessing a court's system and providing a response to queries.  Front end providers may provide value added services to filers, including sophisticated document links and information from multiple databases beyond the court's database.   To provide these value added functions, front end providers might have databases for their filer's data and documents that are separate from the court's databases.

Compliance with the mandatory subfunctions within this function provides assurances that regardless of value added services that a front end may provide to a filer, all data and documents returned in response to queries of court record or data status will be the most current and complete court record.   Electronic filing front end providers cannot provide responses to queries of court records from queries of solely the provider's database (see Standard 1.1K  Court Control over Court Documents.)

**Subfunction 3.18.3**   It is essential that each response to a query incorporate some indication of the currency of the data and documents.  Systems must provide reliable methods to make users aware of the currency of the electronic record being viewed.

**Subfunction 3.18.4**   An electronic filing system must provide some means (such as a hash) to allow persons receiving court orders to ensure that they are identical to the order in the court's official record.  This is not expected to replace certified copies.

**Subfunction 3.18.5**   An electronic filing system is not complete without a means to support the query and response function.

**Subfunction 3.18.6**   Standard 1.1K addresses the relationship between a court and an outside entity maintaining court records.  This subfunction requires that systems be able to support the requirements of that standard – notifying such record holders of changes to the record (including changes in the confidentiality status of any document) and that information provided accurately reflects the current official status of that information.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.18  Functional Standard:  Requests for and Responses to Requests for Case Information** | | | |
| **3.18.1    System processes requests and responses to standard queries for court records according to the standard protocol approved by COSCA/NACM.** | X | X | |
| **3.18.2    Every response to a query includes the most current, complete and accurate CMS and DMS records as defined by court policy.** | X | X | |
| **3.18.3    System provides a notice to the person making the query of the currency of the information.** | X | X | |
| **3.18.4    System provides authentication and verification that the court order in the court's database is the court order received by the requestor.** | X | X | |
| **3.18.5    System supports queries of court records and responses to queries of court records.** | X | X | |
| **3.18.6    System notifies appropriate actors of updates to the court record.** | X | | X |

## 3.19 Functional Standard: Integration with Document Management Systems

Functional Standards 3.19 and 3.20 (**3.19 Functional Standard: Integration with Document Management Systems and Functional Standard: Integration with Case Management System**) address the integration of electronic filing systems with document and case management systems. The requirements may seem somewhat redundant -- the standards allow some functionality to be contained in either the DMS or the CMS. This redundancy is intentional to allow different implementations of required functionality.

The Conceptual Model shows access to the DMS is through the CMS. This is not essential, but is used to conceptualize the tight relationship intended between the electronic filing front end and the CMS, including the CMS providing the primary index to documents in the case.

**Subfunction 3.19.1** Standard 1.3G requires that electronic documents be accessible from the docket or register of actions in the case management information system. This function requires that the link be instantaneous and automatic (achieved with no more than a single click of a mouse) both to enter a document into storage and to retrieve it for viewing or printing. Providers cannot require users to launch a separate application manually for document viewing. For example, a document stored as PDF will automatically launch the application for viewing (provided the viewing computer has been configured to do that). A vendor who requires the user to go to a separate folder or directory to choose or save a document for viewing would not be complying with the "one-click" method required.

**Subfunction 3.19.2** This function also requires that an electronic filing system automatically securely store submitted documents while they are being processed and before they are committed to storage in the court's operational database. This will allow redundancy and roll-back.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.19  Functional Standard:  Integration with Document Management Systems** | | | |
| **3.19.1    System delivers case documents for entry and retrieval into the court's electronic Document Management System and Case Management System with "one-click" methods that do not require duplicative work on the part of court clerks for record entry into or retrieval from case management or document management systems.** | | X | |
| **3.19.2    System stores documents until the court takes custody of the document.** | X | X | |

## 3.20  Functional Standard:  Integration with Case Management System

**Subfunctions 3.20.1 and 3.20.2**  The discussion for 3.19 Functional Standard: Integration with Document Management Systems covers the first two subfunctions in this section.

**Subfunction 3.20.3**  The third subfunction directly reflects the requirement of **Standard 1.3G** (**Integration with Case Management and Document Management Systems**) requiring that access to court documents be through the case management information system.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.20** **Functional Standard:** **Integration with Case Management System** | | | |
| **3.20.1** **System delivers case information for entry and retrieval into the court's electronic Document Management System and Case Management System with "one-click" methods that do not require duplicative work on the part of court clerks for record entry or retrieve into case management or document management systems.** | | X | |
| **3.20.2** **System stores information associated with the filing until the court takes custody of the filing.** | X | X | |
| **3.20.3** **CMS is used to access or point to the location of documents in electronic court records.** | | X | |

## 3.21 Functional Standard: Judicial Information Sharing Among Courts, Including Appellate Courts

**Subfunction 3.21.1**  For appeals, transfers, and other inter-court activities it is mandatory that an electronic version of the record be provided.  It is desirable that the electronic record of one court be accessed remotely by the new court, rather than having to electronically transmit the records to the new court in every instance.   It is not intended that full transcripts and exhibits are required within the electronic filing at this time.  However, transcripts will be incorporated into the electronic court file pursuant to standards for fully searchable, non-alterable transcripts being developed by the National Court Reporters Association.  In Functional Standard 0, the inclusion of exhibits and other data introduced during the course of a trial or hearing is covered.

Appellate courts handle many matters that are not traditional appeals, such as original actions, writs, attorney and judge discipline, and judicial assignments.  All of the documents filed in these sorts of actions can be accommodated by standard electronic filing process functionality.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.21  Functional Standard:  Judicial Information Sharing Among Courts, Including Appellate Courts** | | | |
| **3.21.1     The system provides the record on bindover or transfer to another court from the electronic record in accordance with statutes and rules.** | X | | X |

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## 3.22   Functional Standard:  Document Retention and Archiving

**Subfunction 3.22.1**   Every court pursuing electronic filing must investigate specific requirements for archiving within its own statutes and rules.

**Subfunction 3.22.2**   However, each court pursuing electronic filing is advised that work may be necessary on a statewide basis to "pave the way" to ensure that state policies on retention, archiving and destruction are consistent with the ultimate goal of electronic documents serving as the official court record.  Given the extant issues related to long term retrieval with any electronic media, federal and state archivists may continue to require micro-form production to ensure archival access to court records.  A few states have begun to accept electronic records, when the submitter is able to assure the archivist that it will maintain indefinitely the ability to read those documents on the computer hardware and software it will have in the future.

1.1.1Standard 1.3H Archiving Electronic Documents, requires courts to incorporate processes for migrating electronic court records forward so as to be able to comply with these emerging archival standards.

| FUNCTION AND SUB-FUNCTION | Local Details | Mandatory | Optional |
|---|---|---|---|
| **3.22    Functional Standard:    Document Retention and Archiving** | | | |
| **3.22.1    System provides for archiving of data and documents in accordance with approved retention, archiving and destruction policies** | X | X | |
| **3.22.2    System provides for forward migration of all court documents** | X | X | |

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## 3.23  Functional Standard:  Related Technical Considerations

This function covers technical considerations that do not fit within one of the other specialized Functional Standards.

**Subfunction 3.23.1**   The standards consider the necessity of browser technology and web services so significant that they are mandatory technical requirements as discussed in  Standard 1.1C,  Technical Requirements.   The requirement does not apply to internal court applications that can be separate from the interoperability requirements for electronic filing.

**Subfunction 3.23.2**  This subfunction requires compliance with standards for web services (see Glossary) to enable applications to obtain from Internet registries the requirements for interoperating with browser-based applications in fully automated form.

**Subfunction 3.23.3**   The third subfunction is included to ensure that the electronic record can be used without the necessity of paper by the people who regularly use the case file as the basis for their work.   Judicial officers, attorneys, court staff, and treatment staff often write notes that are not part of the official court record, but are part of their working papers associated with cases.   These are not part of the official court record, but they are essential if case processing is to proceed without paper.  It is highly desirable that systems allow for notes, communications, and annotations to documents within case records in an electronic fashion.  "Ownership" and access must be carefully controlled (e.g., a judicial officer may indicate that only he/she may see the notes, or may indicate that his/her staff can see the notes as well.)

There are not only technical challenges to providing this functionality.  To accommodate this function, rule changes may be needed to comply with existing statutes regarding release of information.  It is likely that this function may be fulfilled by the Case Management System or Document Management System rather than the electronic filing system itself.

**Subfunction 3.23.4**   Electronic filing applications should also provide the functionality to allow lawyers to communicate with other lawyers on matters that are unrelated to any current court matter.  This functionality will serve as a valuable additional service for lawyers, encouraging their use of electronic filing processes.  Out of concern for the confidentiality of the attorney/client relationship, the standards do not recommend extending this functionality to communications between lawyers and their clients.  The law is not yet clear whether posting such messages to an electronic filing-type process would constitute a waiver of the privilege attaching to attorney/client communications.  It is expected that this functionality will not be maintained by court systems – only by non-court systems.

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| FUNCTION AND SUB-FUNCTION | Local Details Needed | Mandatory | Optional |
|---|---|---|---|
| **3.23  Functional Standard:   Related Technical Considerations** | | | |
| **3.23.1     System uses browser technology and complies with W3C technical standards for a variety of platform operating systems and browsers.** | | X | |
| **3.23.2     System complies with W3C web services standards.** | X | X | |
| **3.23.3     System supports annotation that is not part of the court record, with appropriate confidentiality and access controls.** | X | X | |
| **3.23.4     System supports actor-to-actor communication that is not part of the court record, with appropriate confidentiality and access controls.** | X | | X |

# SECTION 4 - GLOSSARY

# 4    Glossary

| | |
|---|---|
| **Application Programming Interface (API)** | The protocols and standards used to access the functionality of an application hosted on a computer. |
| **Case Management System (CMS)** | A court Case Management System manages the receipt, processing, storage, and retrieval of data associated with a case and performs actions on the data. |
| **CDC** | Court Data Configuration.  A work in progress within the Court Filing Technical Committee of the Legal XML Member Section of OASIS.  The standards for the CDC will be the vehicle for expressing codes and translations and other specific data and environmental considerations for front end applications. |
| **Clerk Review** | A concept indicating a suspense queue of electronically filed matters.  From this queue, in accordance with court rules and practice, court clerks may review the data and documents filed to ensure consistency, accuracy, and completeness before creating a register of actions entry or before docketing the case. |
| **Confidential or Confidentiality** | Equivalent to the use of the terms (or similar terms such as sealed or sequestered) in the context of the courts' limiting access to a particular type of document, or documents in a case, or to a particular document based on its special character (for instance, its containing protected trade secrets).  Court electronic document systems will be able to automate such access limitations through the use of system security features. |

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| **Court Electronic Record** | Any document that a court will receive in electronic form, record in its case management information system and store in its document management system. This will include notices and orders created by the court as well as pleadings, other documents, and attachments created by attorneys or parties. It will not include physical exhibits brought into the courtroom for the court's or jury's edification, which are not susceptible of capture in electronic form. |
| **Court Initiated Filings** | Official court documents entered into the docket or register of actions, such as notices or orders. The term "court initiated filings" is a simplification to indicate that the documents will be submitted as part of the electronic court record, but could be submitted using exactly the same process as external filings if the court so desires. |
| **Court Policy XML** | A work in progress within the Court Filing Technical Committee of the Legal XML Member Section of OASIS. The standards document will be the vehicle for expressing a particular court's policies affecting ECFS and related XML court filing standards. |
| **Docket or Docket Entry** | Same definition as Register of Actions. Within this document, "register of actions" and "docket" when used as nouns are synonymous.<br><br>Used as a verb, "docket" indicates that an entry is made into the official synopsis. |
| **Document Management System (DMS)** | A Document Management System manages the receipt, indexing, storage, and retrieval of electronic and non-electronic documents associated with a case. |
| **ECFS** | Current version of XML Electronic Court Filing Standard. This is currently a DTD and has reached status as a Proposed Standard under the COSCA/NACM standards development process. |

| **Electronic Filing Service Provider (EFSP)** | Electronic Filing Service Provider. The front end application used by a filer to submit filings and related data, to make queries, and to receive responses. The EFSP also provides the applications that transmit the filings to the court's Electronic Filing Manager. This front end application may be provided by a court, by a private vendor, or by any organization who complies with the standards. |
| --- | --- |
| | The architectural component that supports a user's creation of a filing for submission to a court. The component may be provided by a court or a separate entity, such as a commercial vendor. |
| **Filing** | Any request for action, response, or document submitted to the court and associated with a specific case. |
| | Normally, this is intended to include only things that would be considered "filed" over the court's counter in a paper system. Requests for general information and correspondence not part of a case file are not generally considered as "filings". However, there may be some courts that choose to use the same processes for these informal communications as they use for formal filings. This additional use is not prohibited by the standards. |
| **Front End, Front End System, or Front End Application** | The browser based application used by a filer to submit filings and related data, to make queries, and to receive responses. This is the same as the EFSP defined above. |
| **Internet** | An electronic communications network that connects computer networks and organizational computer facilities around the world. |
| **Mass Filings** | Same type of filing and documents for multiple cases at one time. Although these may be processed by any system sequentially and will require separate "Legal Envelopes", mass filings indicate those circumstances where an outside entity files many cases at the same time (e.g., traffic tickets issued the prior day, filings for judgments on collections), and most likely through some automated method without individual data entry by a filer for each case at the front end application. |

| | |
|---|---|
| **Parties** | A person formally associated with a case as a defendant, plaintiff, or respondent. Attorneys, witnesses, judges, and court staff are not parties to a case. |
| **Protocol** | A standard way of communicating across a network. A protocol is the "language" of the network and a method by which two dissimilar systems can communicate. |
| **Query/Response XML** | A work in progress within the Court Filing Technical Committee of the Legal XML Member Section of OASIS. The standards document will be the vehicle for expressing pre-defined and open queries and the range of responses expected from the court's CMS. |
| **Register Of Actions** | The official synopsis of filings and court events and actions, with an entry created for each filing, event, and action. While the form and content differ among courts, "register of actions" is used generically with this document to indicate the synopsis maintained separately from the official court record of a case that also contains documents. |
| **Service Of Process** | Service of a summons upon the person or agent of a party to acquire the court's personal jurisdiction over the person, as required by statutes, court rules and constitutional principles of due process of law, as certified by a return of service. |
| **Service Or Notice** | Providing a copy of a court filing to other parties in the case, as required by court rules, and as certified through a certificate of service. |
| **Simple Object Access Protocol (Soap)** | The standardized protocol for packaging messages between web applications. It provides an application interface for an application on one server to the functionality of an application on another server. A SOAP message is written in XML. |
| **Systems** | Automated components that work together to provide electronic filing functions, from the point of the filer to the interaction with a court's CMS or DMS. No distinction is made among vendor, court, or open development as the source of the system. There is also no prohibition or requirement that functions be contained in a single application – implementations may include multiple |

applications from multiple sources to perform all functions identified.

| | |
|---|---|
| **W3C– World Wide Web Consortium** | The world wide web consortium (w3c) develops interoperable technologies (specifications, guidelines, software, and tools) with the purpose of leading the web to its full potential as a forum for information, commerce, communication, and collective understanding.<br><br>Http://www.w3.org/#technologies |
| **Web Service** | Gartner Group offers two deftnitions of Web Services.<br>• An official definition:  "Discoverable, self-describing, programmatic, accessible via Internet protocols, agnostic of operating systems, programming model and language, aggregated and orchestrated, loosely coupled, supporting Web services standards."<br>• A common sense definition: "Software components that employ one or more of the following to perform distributed computing:<br>   o  Universal Description, Discovery, and Integration (UDDI)<br>   o  Web Services Description Language (WSDL)<br>   o  Simple Object Access Proptocol (SOAP).<br><br>In both the official and the common sense definitions, Web Services assumes "discovery" by XML.<br><br>"Web services" is not used in this document to define a specific architecture. |
| **Web Service Description Language (WSDL)** | An XML file that provides a web service consumer with all the information needed to interact with a web service provider. |

# 5    APPENDIX
# STANDARDS WITHOUT COMMENTARY

# 5.1 Policy Standards Without Commentary

## *1.1 GENERAL PRINCIPLES*

**Standard 1.1A     Official Court Record**
The electronic document will be the official court record.  Paper records, if maintained, will be considered a copy of the official court record.

**Standard 1.1B     Electronic Viewing**
Electronic filing processes will presume that all users will view documents on their computer screens.  Paper copies will be available on demand, but their production will be exceptional, not routine.

**Standard 1.1C     Technical Requirements**
Courts will use Internet browser, eXtensible Markup Language, web services and World Wide Web Consortium recommended standards for electronic filing processes.

**Standard 1.1D     Document Format**
Courts will require electronic documents to be submitted in a format that can be rendered with high fidelity to originals, and, when possible, is searchable and tagged.  Courts will only require formats for which software to read and write documents is available free for viewing and is available free or at a reasonable cost for writing and printing.

**Standard 1.1E     Self-Contained Documents**
Each filed document will be self-contained, with links only to other documents submitted simultaneously or already in the court record.

**Standard 1.1F     Data Accompanying Submitted Documents**
Courts will require filers to transmit data identifying a submitted document, the filing party, and sufficient other information for the entry in the court's docket or register of actions.  In the case of a document initiating a new case, sufficient other information will be included to create a new case in the court's case management information system.  This data will be specified with particularity by the court.

**Standard 1.1G     Identity of the Sender**
Courts will use some means to identify persons interacting with its electronic filing system.

**Standard 1.1H     Integrity of Transmitted and Filed Documents and Data**
Courts will maintain the integrity of transmitted documents and data, and documents and data contained in official court files, by complying with current Federal Information Processing Standard 180.2 or its successor.

**Standard 1.1I     Electronic Acceptance of Payments**
Courts will establish a means to accept payments of fees, fines, surcharges and other financial obligations electronically, including the processing of applications to waive fees.

**Standard 1.1J     Surcharges for Electronic Filing**
Courts should avoid surcharges for filing of or access to electronic documents if they are able to obtain public funding of their electronic filing processes.  Courts may impose such surcharges or use a private vendor that imposes surcharges when public funding is not available.  Such surcharges should be limited to recouping the marginal costs of supporting electronic filing processes if collected by the court or to a reasonable level if imposed by a private vendor.

**Standard 1.1K     Court Control over Court Documents**
Whenever a court's electronic documents reside on hardware owned or controlled by an entity other than the court, the court will ensure by contract or other agreement that ownership of the documents remains with the court or clerk of court. All inquiries for court documents and information will be made against the current, complete, accurate court record.

### Standard 1.1L    Addressing the Special Needs of Users

In developing and implementing electronic filing, courts will consider the needs of indigent, self-represented, non-English speaking, or illiterate persons and the challenges facing persons lacking access to or skills in the use of computers.

## 1.2    COURT RULES

### Standard 1.2A    Service of Filings on Opposing Parties

Court rules may provide that electronic transmission of a document through the electronic filing process to opposing counsel or parties who participate in the electronic filing process will satisfy the service requirements of court procedural rules.  Such electronic filing processes will automatically create and docket a certificate of service for documents served electronically through the electronic filing process.  Court rules need not provide additional time for responding to documents served in this fashion.

### Standard 1.2B    Use of Unique Identifier

Court rules will provide that a lawyer or other person provided with a unique identifier for purposes of filing documents electronically will be deemed to have filed any document submitted using that identifier.

### Standard 1.2C    Determining when a Document is Filed

Court rules will articulate the criteria by which an electronic document is deemed "received", "filed," "served," and "entered on the docket or register of actions."  Courts will record the date and time of filing and inform the filer of them or of rejection of the document and the reasons for rejection.

### Standard 1.2D    Availability of Electronic Filing Process

Courts will accept electronic documents 24 hours per day, 7 days per week, except when the system is down for maintenance.  The date on which document will be  deemed filed  will be in accordance with the court's definition of "filed" pursuant to Standard 1.2C, whether or not the clerk's office was open for business at the time the document was submitted electronically.

### Standard 1.2E    Remedy for Failure of Electronic Processes

Court rules will create procedures and standards for resolving controversies arising from the electronic filing process.

## 1.3    IMPLEMENTING ELECTRONIC FILING SYSTEMS

### Standard 1.3A    Universal Electronic Filing Processes

Courts will ultimately include all documents in all case types in electronic filing processes although they may implement electronic filing incrementally.

### Standard 1.3B    Mandatory Electronic Filing Processes

Court rules may mandate use of an electronic filing process if the court provides a free electronic filing process or a mechanism for waiving electronic filing fees in appropriate circumstances, the court allows for the exceptions needed to ensure access to justice for indigent, disabled or self-represented litigants, the court provides adequate advanced notice of the mandatory participation requirement, and the court (or its representative) provides training for filers in the use of the process.

### Standard 1.3C    Judicial Discretion to Require Electronic Filing in Specific Cases

Judges will have the authority to require participation in the electronic filing system in appropriate cases until such participation becomes mandatory for all cases.

### Standard 1.3D    Maintaining Supplementary Scanning Capability

Courts will ensure that all documents in electronic cases are maintained in electronic form.  Consequently, in voluntary electronic filing processes, courts will scan paper documents and file them electronically.

### Standard 1.3E    Quality Control Procedures

Courts will institute a combination of automated and human quality control procedures sufficient to ensure the accuracy and reliability of their electronic records system.

### Standard 1.3F    Eliminating Unnecessary Paper Processes

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Courts will eliminate paper processes that are obsolete or redundant in an electronic environment.

### Standard 1.3G    Integration with Case Management and Document Management Systems

Electronic documents will be accessed through a court's case management information system.  Courts will mandate that case management information systems provide an application programming interface capable of accommodating any electronic filing application that complies with these standards.  Courts using electronic filing processes will require automated workflow support.

### Standard 1.3H    Archiving Electronic Documents

Courts will maintain forward migration processes to guarantee future access to electronic court documents.

## 5.2    Functional Standards and Subfunctions Without Commentary

*All functions and subfunctions are included in the listing below.*

### 3.1    FUNCTIONAL STANDARD:  GENERAL COURT STANDARDS

**3.1.1    System conforms to existing COSCA/NACM standards and has the flexibility to adapt to emerging COSCA/NACM standards found at http://www.ncsc.dni.us.**

**3.1.2    System describes unique court filing policies and standards in an XML format, accessible free of charge by potential filers, including service providers.**

**3.1.3    System provides a process to inform current users of court policy changes relative to electronic filing.**

### 3.2    FUNCTIONAL STANDARD: SYSTEM ARCHITECTURE

**3.2.1    System architecture supports XML data exchange in accordance with standards adopted by COSCA and NACM.**

**3.2.2    System architecture incorporates migration strategies for new releases of XML standards**

**3.2.3    System architecture provides capabilities for high volume filers to transfer large numbers of documents, attachments and envelopes at one time ("mass filing").**

**3.2.4    System has disaster recovery and rollback capabilities consistent with court needs and policy.**

### 3.3    FUNCTIONAL STANDARD:  ELECTRONIC DOCUMENTS

**3.3.1    System records all dates and times needed to apply court rules governing the time and date that court filing occurs and informs filer of the data and time of filing**

**3.3.2    System accepts the importation of non-electronic documents into the electronic court record in accordance with statutes and rules.**

**3.3.3    System provides a method for handling other electronic materials involved in a case, including, e.g., transcript, exhibits, and multimedia presentations made to the jury.**

**3.3.4    System presents the documents in the electronic formats allowed by the court.**

**3.3.5    System will produce copies on demand.**

### 3.4    FUNCTIONAL STANDARD:  DOCUMENT INTEGRITY

**3.4.1    System provides a means to verify the integrity of any electronic document received and stored by the court.**

**3.4.2** **System provides document redundancy.**

**3.4.3** **Hash algorithms must be provided within receipt and the system must provide a document history of hashes.**

**3.4.4** **At a minimum, system must comply with FIPS 180-2 or successors. (http://www.itl.nist.gov/fipspubs/fip180-2.htm).**

## 3.5 FUNCTIONAL STANDARD: SYSTEM SECURITY

**3.5.1** **System transmissions are secure.**

**3.5.2** **System provides an audit log of transactions as appropriate to the court's needs.**

**3.5.3** **System must provide that appropriate court staff have control of assignment and revocation of security levels and privileges**

**3.5.4** **System provides appropriate processes for court staff to control user privileges to create, modify, delete, print, or read electronic records.**

**3.5.5** **The "Legal Envelope" and the document must both have state-of-the-art and robust virus checking applied prior to transmission to the court and upon receipt of the transmission at the court.**

**3.5.6** **System complies with generally accepted security protocols, including use of HTTPS and secure socket layer (SSL).**

## 3.6 FUNCTIONAL STANDARD: SIGNATURES AND AUTHENTICATION

**3.6.1** **System complies with statutes and rules for authentication of electronic documents.**

**3.6.2** **System provides authentication of filer identity in accordance with court policies.**

**3.6.3** **System provides a method of authenticating judicial officer actions**

## 3.7 FUNCTIONAL STANDARD: CASE AND DOCUMENT CONFIDENTIALITY

**3.7.1** **System provides provisional confidentiality until a determination on confidentiality is made by the court**

**3.7.2** **System allows for changes of confidentiality status for documents or the case during the life of the case.**

**3.7.3** **Based on the nature of the document and the nature of case, system provides automatic confidentiality at the time of electronic document filing in accordance with statutes and rules or court orders.**

## 3.8 FUNCTIONAL STANDARD: ACCEPTANCE AND REJECTION OF FILINGS

**3.8.1** **Front End Application is able to support the court's policy on filing when the court's accepting system is down.**

**3.8.2** **System informs the filer of the acceptance or rejection. The receipt must include the reasons for rejection and document hash.**

**3.8.3** **System supports automated acceptance and rejections of filings and documents in accordance with the form and substance requirements of the court.**

**3.8.4** **Acknowledgements of filings must include the address by which the document can be accessed for the purpose of linking it to subsequent filings in the same case.**

## 3.9 FUNCTIONAL STANDARD: USER AND SERVICE REGISTRATION

**3.9.1** **System maintains a register of authorized users and identifiers. System supports registration/authorization process for submission of electronic court filings by:**

**3.9.2** **A registry of web services must be provided by the system for integration, e.g. UDDI.**

## 3.10 FUNCTIONAL STANDARD: COURT PAYMENTS

**3.10.1** **System accommodates payments in accordance with statutes and rules.**

## 3.11 FUNCTIONAL STANDARD: SUBMISSION OF ALL FILINGS

**3.11.1** **If the court's case management system is not operational, the front end electronic filing system sends a message immediately to the filer and holds the filing for submission when the court's system is operational.**

**3.11.2** **Front end system validates case number, filing parties, case types, document types, and other elements required for populating the court's database.**

**3.11.3** **Front end system provides error messages and correction options if the filing is not in accordance with court policies, codes, and requirements including case openings.**

**3.11.4** **System assigns and confirms a unique identifier for each filing**

## 3.12 FUNCTIONAL STANDARD: CASE OPENING FILINGS

**3.12.1** **System assigns a unique case identifier until assignment of a permanent case number by the court.**

**3.12.2** **System allows automated initiation of new cases without requiring submission of the case to the clerk review queue.**

**3.12.3** **System supports automated docket entries for initial filings without clerk review.**

## 3.13 FUNCTIONAL STANDARD: SUBSEQUENT CASE FILINGS

**3.13.1** **System supports automated docket entries for subsequent filings without clerk review.**

**3.13.2** **System allows automated receipt of subsequent filings without requiring submission of the case to the clerk review queue.**

## 3.14 FUNCTIONAL STANDARD: SERVICE AND NOTICE

**3.14..1** **System electronically serves documents and notice to other parties participating in the electronic filing system, in accordance with statutes and rules**

**3.14.2** **System generates a record of the non-electronic filing parties to whom service must be provided**

**3.14.3** **System automatically creates and dockets in the court's case management system a certificate of service for the document served.**

## 3.15 FUNCTIONAL STANDARD: JUDICIAL CONSIDERATION OF DRAFTS

**3.15.1** **System provides a method for parties to transmit proposed orders and other proposed materials to judicial officers for consideration, with or without docketing the event and committing the document and data to the database.**

**3.15.2** **System provides a method for the judicial officer to return a modified proposed document to the sending parties with or without docketing the event and committing the data to the database.**

**3.15.3**    **System provides automatic notice to all parties when filer sends a proposed order to a judicial officer for consideration.**

**3.15.4**    **System provides automatic notice to all parties when the judicial officer returns a modified proposed document to the sending parties.**

### *3.16    FUNCTIONAL STANDARD:  CLERK REVIEW*

**3.16.1**    **System provides for review of data and documents by court staff prior to inclusion in the court record based on local procedures and rules.**

**3.16.2**    **If the filer must take additional action after clerk review, the system provides a method for the clerk to send notice to the filer.**

### *3.17    FUNCTIONAL STANDARD:  COURT INITIATED FILINGS*

**3.17.1**    **System allows for court judicial officers and court staff to initiate actions as filings.**

**3.17.2**    **System informs parties of court initiated filings.**

### *3.18    FUNCTIONAL STANDARD:  REQUESTS FOR AND RESPONSES TO REQUESTS FOR CASE INFORMATION*

**3.18.1**    **System processes requests and responses to standard queries for court records according to the standard protocol approved by COSCA/NACM.**

**3.18.2**    **Every response to a query includes the most current, complete and accurate CMS and DMS records as defined by court policy.**

**3.18.3**    **System provides a notice to the person making the query of the currency of the information.**

**3.18.4**    **System provides authentication and verification that the court order in the court's database is the court order received by the requestor.**

**3.18.5**    **System supports queries of court records and responses to queries of court records.**

**3.18.6**    **System notifies appropriate actors of updates to the court record.**

### *3.19    FUNCTIONAL STANDARD:  INTEGRATION WITH DOCUMENT MANAGEMENT SYSTEMS*

**3.19.1**    **System delivers case documents for entry and retrieval into the court's electronic Document Management System and Case Management System with "one-click" methods that do not require duplicative work on the part of court clerks for record entry into or retrieval from case management or document management systems.**

**3.19.2**    **System stores documents until the court takes custody of the document.**

### *3.20    FUNCTIONAL STANDARD:  INTEGRATION WITH CASE MANAGEMENT SYSTEM*

**3.20.1**    **System delivers case information for entry and retrieval into the court's electronic Document Management System and Case Management System with "one-click" methods that do not require duplicative work on the part of court clerks for record entry or retrieve into case management or document management systems.**

**3.20.2**    **System stores information associated with the filing until the court takes custody of the filing.**

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**3.20.3** **CMS is used to access or point to the location of documents in electronic court records.**

## 3.21 FUNCTIONAL STANDARD: JUDICIAL INFORMATION SHARING AMONG COURTS, INCLUDING APPELLATE COURTS

**3.21.1** **The system provides the record on bindover or transfer to another court from the electronic record in accordance with statutes and rules.**

## 3.22 FUNCTIONAL STANDARD: DOCUMENT RETENTION AND ARCHIVING

**3.22.1** **System provides for archiving of data and documents in accordance with approved retention, archiving and destruction policies**

**3.22.2** **System provides for forward migration of all court documents**

## 3.23 FUNCTIONAL STANDARD: RELATED TECHNICAL CONSIDERATIONS

**3.23.1** **System uses browser technology and complies with W3C technical standards for a variety of platform operating systems and browsers.**

**3.23.2** **System complies with W3C web services standards.**

**3.23.3** **System supports annotation that is not part of the court record, with appropriate confidentiality and access controls.**

**3.23.4** **System supports actor-to-actor communication that is not part of the court record, with appropriate confidentiality and access controls.**

## 5.3  Local Options Without Commentary

*Note:  Within the Functionality Matrices, many subfunctions contain the indication of "LOCAL DETAIL NEEDED".   When using the Functional Standards to develop standards or specifications for bids or design, the court must make modifications to explicitly state or reference the practices relevant to that court for these subfunctions. The subfunctions requiring local detail are listed below.*

*3.2.4      System has disaster recovery and rollback capabilities consistent with court needs and policy.*

*3.3.1      System records all dates and times needed to apply court rules governing the time and date that court filing occurs and informs filer of the data and time of filing*

*3.3.2      System accepts the importation of non-electronic documents into the electronic court record in accordance with statutes and rules.*

*3.3.3      System provides a method for handling other electronic materials involved in a case, including, e.g., transcript, exhibits, and multimedia presentations made to the jury.*

*3.3.4      System presents the documents in the electronic formats allowed by the court.*

*3.3.5      System will produce copies on demand.*

*3.4.1      System provides a means to verify the integrity of any electronic document received and stored by the court.*

*3.5.1      System transmissions are secure.*

*3.5.2      System provides an audit log of transactions as appropriate to the court's needs.*

*3.5.3      System must provide that appropriate court staff have control of assignment and revocation of security levels and privileges*

*3.5.4      System provides appropriate processes for court staff to control user privileges to create, modify, delete, print, or read electronic records.*

*3.6.1      System complies with statutes and rules for authentication of electronic documents.*

*3.6.2      System provides authentication of filer identity in accordance with court policies.*

*3.6.3      System provides a method of authenticating judicial officer actions*

*3.7.1      System provides provisional confidentiality until a determination on confidentiality is made by the court*

*3.7.2      System allows for changes of confidentiality status for documents or the case during the life of the case.*

*3.7.3      Based on the nature of the document and the nature of case, system provides automatic confidentiality at the time of electronic document filing in accordance with statutes and rules or court orders.*

*3.8.1 Front End Application is able to support the court's policy on filing when the court's accepting system is down.*

*3.8.2 System informs the filer of the acceptance or rejection. The receipt must include the reasons for rejection and document hash.*

*3.8.3 System supports automated acceptance and rejections of filings and documents in accordance with the form and substance requirements of the court.*

*3.8.4 Acknowledgements of filings must include an address by which the document can be accessed for the purpose of linking it to subsequent filings in the same case.*

*3.9.1 System maintains a register of authorized users and identifiers. System supports registration/authorization process for submission of electronic court filings by:*

*3.9.2 A registry of web services must be provided by the system for integration, e.g. UDDI.*

*3.10.1 System accommodates payments in accordance with statutes and rules.*

*3.11.1 If the court's case management system is not operational, the front end electronic filing system sends a message immediately to the filer and holds the filing for submission when the court's system is operational.*

*3.11.2 Front end system validates case number, filing parties, case types, document types, and other elements required for populating the court's database.*

*3.11.3 Front end system provides error messages and correction options if the filing is not in accordance with court policies, codes, and requirements including case openings.*

*3.11.4 System assigns and confirms a unique identifier for each filing*

*3.12.1 System assigns a unique case identifier until assignment of a permanent case number by the court.*

*3.12.2 System allows automated initiation of new cases without requiring submission of the case to the clerk review queue.*

*3.12.3 System supports automated docket entries for initial filings without clerk review.*

*3.13.1 System supports automated docket entries for subsequent filings without clerk review.*

*3.13.2 System allows automated receipt of subsequent filings without requiring submission of the case to the clerk review queue.*

*3.14..1 System electronically serves documents and notice to other parties participating in the electronic filing system, in accordance with statutes and rules*

*3.14.2 System generates a record of the non-electronic filing parties to whom service must be provided*

*3.14.3 System automatically creates and dockets in the court's case management system a certificate of service for the document served.*

*3.15.1 System provides a method for parties to transmit proposed orders and other proposed materials to judicial officers for consideration, with or without docketing the event and committing the document and data to the database.*

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*3.15.2      System provides a method for the judicial officer to return a modified proposed document to the sending parties with or without docketing the event and committing the data to the database.*

*3.15.3      System provides automatic notice to all parties when filer sends a proposed order to a judicial officer for consideration.*

*3.15.4      System provides automatic notice to all parties when the judicial officer returns a modified proposed document to the sending parties.*

*3.16.1      System provides for review of data and documents by court staff prior to inclusion in the court record based on local procedures and rules.*

*3.16.2      If the filer must take additional action after clerk review, the system provides a method for the clerk to send notice to the filer.*

*3.17.1      System allows for court judicial officers and court staff to initiate actions as filings.*

*3.18.1      System processes requests and responses to standard queries for court records according to the standard protocol approved by COSCA/NACM.*

*3.18.3      System provides a notice to the person making the query of the currency of the information.*

*3.18.4      System provides authentication and verification that the court order in the court's database is the court order received by the requestor.*

*3.18.5      System supports queries of court records and responses to queries of court records.*

*3.18.6      System notifies appropriate actors of updates to the court record.*

*3.19.2      System stores documents until the court takes custody of the document.*

*3.20.2      System stores information associated with the filing until the court takes custody of the filing.*

*3.21.1      The system provides the record on bindover or transfer to another court from the electronic record in accordance with statutes and rules.*

*3.22.1      System provides for archiving of data and documents in accordance with approved retention, archiving and destruction policies*

*3.23.2      System complies with W3C web services standards.*

*3.23.3      System supports annotation that is not part of the court record, with appropriate confidentiality and access controls.*

*3.23.4      System supports actor-to-actor communication that is not part of the court record, with appropriate confidentiality and access controls.*