Electronic Filing

What is it?

What are its Implications?*

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June 2002 *(as revised 11/26/03)*

*- *Hard copy printed in:*
19 SANTA CLARA COMPUTER & HIGH TECH. L.J. 181 (Dec. 2002)

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I. INTRODUCTION

A. Dramatic Impact of Efiling

A study, titled "How Much Information"[1] and published in 2000, by the faculty and students at the School of Information Management and Systems at the University of California at Berkeley reported:

> The world produces between 1 and 2 exabytes of unique information per year, which is roughly 250 megabytes for every man, woman, and child on earth. An exabyte is a billion gigabytes, or 10^{18} bytes. Printed documents of all kinds comprise only .003% of the total. Magnetic storage is by far the largest medium for storing information and is the most rapidly growing, with shipped hard drive capacity doubling every year. Magnetic storage is rapidly becoming the universal medium for information storage.[2]

It is at first startling to read that only .003% of the unique information produced annually by the world is in printed documents. Startling or not, the statistic provides a perspective of what information currently exist only in electronic form. It also raises a serious question of why are we only beginning to hear about electronic filing now?

B. What is Efiling?

Electronic filing is the filing of information in electronic form as opposed to paper form. Efiling will likely have a more pervasive effect on the legal system than did the adoption of administrative procedure acts or codes of civil procedure. It will require fundamental changes in organization, operation, management and resource utilization by courts, lawyers, clients, citizens and governmental entities.

Before we analyze the basis for such a sweeping statement, we should make sure we have a common starting point. Traditionally filings in courts and governmental agencies[3] have been in paper form. Thus, official court record systems have been paper-based.[4] Moreover, governmental agencies' records have been predominantly paper-based. *See* U.S. General Accounting Office, "*ELECTRONIC GOVERNMENT; Challenges to Effective Adoption of the Extensible Markup Language,*" at 42 (PDF p. 46) <http://www.gao.gov/new.items/d02327.pdf> ("GAO Report").

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[1] Peter Lyman and Hal R. Varian, "*How Much Information? 2000*" (UC Berkeley School of Information Management & Systems, 2000) <http://www.sims.berkeley.edu/research/projects/how-much-info/>. *Cf.* Peter Lyman and Hal R. Varian, *How Much Information? 2003* (UC Berkeley School of Information Management & Systems, 2003), available at <http://www.sims.berkeley.edu/research/projects/how-much-info-2003/index.htm> (99.99% of information being generated is in non-printed form).

[2] *Id*. at 2.

[3] "Governmental agencies" encompasses all state, local and federal governments' instrumentalities, whether as notorious as the Library of Congress or as inconspicuous as the city-licensing bureau.

[4] *See, e.g.,* Supreme Court of Ohio's Advisory Committee on Technology in the Courts (ACTC), *"Integrity of the Court Record"* (Nov. 5, 2002) <http://www.sconet.state.oh.us/ACTC/subcommittees.asp>. *See also* Jan Michels, Dale Ramerman & R. Winters, "*Building an Online Court Records Program*" (Wash. State Bar News May 2000) <http://www.wsba.org/media/publications/barnews/archives/2000/may-00-building.htm>.

Consequently, as would be expected, law office record systems are also paper-based. A significant limitation of paper-based records is that they reside in a single location meaning more than one person cannot simultaneously access the records.

In courts, a unique case number is usually assigned to each proceeding; and some system of file organization is established so that, if filings in a case are delivered to the right court, properly identified, accurately filed and re-filed, one can theoretically locate any document in any filing at any time. Unfortunately, when files have to be stored in a variety of facilities, processed by different clerks, reviewed by different judicial officials, transported to various locations and refiled many times, it is no small wonder that any particular filed document filed can, in fact, be located.

Governmental agencies that receive filings from the public have filing systems that are a little more complicated than court system files. It is not unusual for an agency to have files related to a member of the public scattered among two or more offices. Files in governmental agencies also have a more varied organization. Yet, access is still location-dependent, and records can only be viewed by one user at a time.

Prior to implementing efiling, some courts and governmental agencies, using information from the filed original paper records, have created a variety of electronic information systems to assist in locating and using information in the original paper records. The extent, use and capabilities of these electronic systems are tremendously varied. On the low-tech end of the spectrum the use is simply printing paper schedules, such as court calendars, or creating electronic images of paper records and then manipulating those images in much the same way pages of paper are manipulated. On the higher-tech end of the spectrum is the manual extraction of part of the information from the paper records for inclusion in electronic databases that can manipulate and analyze the extracted information. *See, e.g.*, the searchable on-line "Court Calendar" <http://www.co.marin.ca.us/depts/MC/main/courtcal/name.cfm> database maintained by the California Superior Court for Marin County.

The important point is that, to the extent such electronic records are created or used; they are incomplete, subject to human induced errors and not generally available to the public. They are edifices built on the system of paper records; and, in most instances, the paper records are still considered to comprise the official record.

Efiling is the filing and storage of information made up of electronic bits and bytes, not paper. Electronic filings are generally either: electronically transmitted to a court or governmental agency or, created and submitted by the completion of forms made available on-line by courts or governmental agencies. Delivery or service, with the exception of some initial pleadings, is electronic; and electronic versions of the information are received, stored and maintained in an electronic system.

C. How does it Work?

For courts, registration systems are created that provide login names and passwords for e-filers. Filings are prepared and submitted in electronic form and sent or submitted directly to the court (or, in some cases, to an intermediary, which in turn provides the files to the court).

Answers to many, but not all, of the questions generated by your disbelief in the functionality of such a system for courts will be answered by a review of 1) Local Rule

5.4,[5] 2) General Order 45[6] and 3) the "CM/ECF Frequently Asked Questions [FAQ's] Page" <https://ecf.cand.uscourts.gov/cand/index_faq.html>, all issued by the United States District Court for the Northern District of California, will provide. One should view the systems described in General Order 45 and in the ECF System Users' Manual for the United States District Court for the D.C. District[7] as being beta versions of what will, in the next few years, become much friendlier federal court Electronic Case Filing (ECF) systems.

ECF is not simply a matter of "pushing the button" to render everything automatically accomplished. Most filers will find it necessary to develop protocols to execute electronic filings in the various courts.

For governmental agencies, efiling usually consists of keying information into a form, which is submitted electronically. Some agencies also accept electronic copies of documents that historically had been sent in hardcopy form.[8]

Governmental agencies' efiling systems are too varied to permit a meaningful generalization about how they operate. Instructions for the completion and submission of efilings to governmental agencies are found on the websites of those agencies or are part of the form that is filled out on-line. An interesting and somewhat related question is how often do you or your client save an electronic or paper copy of the forms submitted on-line? A good guess is not very often. So how do you later know, verify or contest the contents of what the agency says has been filed?

II. HOW PERVASIVE IS ELECTRONIC FILING?

A. What is the Adoption Trend Line?

The trend line for adoption of efiling by courts and governmental agencies was pretty flat from 1991 to 1997, with few actual pilot projects undertaken. Since about 1999 the trend line has had a steep incline. Any projection is only a guess, but the authors believe efiling in some form will be pervasive in both federal and state courts and governmental agencies by the end of this decade.

B. Efiling in the State and Federal Court Systems

1. A Little Background

Shamelessly, plagiarizing from a presentation by Tom Smith ("Smith

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[5] <http://shorl.com/jafruvefrepyje> (shorlified deep link to pertinent part of http://www.cand.uscourts.gov site).

[6] <http://www.cand.uscourts.gov/cand/documents.nsf/60dc297abb01e63b8825645f006922f2/6553db7b7b78b6a38825670e00622731?OpenDocument>

[7] <http://www.dcd.uscourts.gov/DCDC_ECF_Manual_Rev_1.pdf>

[8] The SEC, since the mid 1990's, through EDGAR, available at <http://www.sec.gov/edgar.shtml> has been accepting electronic versions of documents previously filed in expensively printed form. The IRS experimented with individual electronic tax returns for a few years but now makes electronic filing broadly available at the efiling portion of its site, <http://www.irs.gov/efile/content/0,,id=100184,00.html>.

Presentation"),[9] the ideal judicial electronic filing system will have the following functionality:

- Universal service (all courts, case types, filings, user communities) - Support any type of filing for any type of case in any jurisdiction;
- Comprehensive (filings, exhibits, fees…) - Anything that needs to be filed should be fileable electronically;
- Consistent end user experience - The user should not be troubled by different interfaces for each jurisdiction or case type;
- End user support - Like any other IT, there is demand for support, marketing, billing, etc.; and
- Multi-jurisdictional practices - Must accommodate filers with practices in multiple jurisdictions.

The objectives outlined above are the basic requirements to get the full benefits of electronic filing. Currently there are no ideal court electronic filing systems in operation in the United States. As noted below, however, early versions of judicial electronic filing systems have been, or are being, implemented in federal and state courts across the United States.

One of the biggest impediments to efiling is the absence of a flexible uniform data protocol for transferring information in a readily useable electronic form. Over the last couple of decades a significant amount of effort has been put into Electronic Data Interchange ("EDI") standards. No courts but some governmental agencies, including the Securities and Exchange Commission (SEC) <www.sec.gov/edgar.shtml> and the Internal Revenue Service (IRS) <www.irs.gov/efile/content/0,,id=100184,00.html> have participated in, and adopted, some EDI standards. Yet, the inflexibility of, and baggage required for, EDI has restricted its use to large organizations with proprietary software and private communication networks, according to a recent report by the United States General Accounting Office (GAO Report).[10]

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[9] Tom Smith is a consultant who worked on the efiling project for the California Administrative Office of the Courts (AOC). On July 18, 2002, he made an "Introduction and Background" PowerPoint presentation <http://www.courtinfo.ca.gov/programs/efiling/documents/cefts3_introv2.ppt> as part of the third "California Electronic Filing Technical Standards (CEFTS) Program" held by the AOC (hereafter "Smith Presentation"). It is from that presentation we have shamelessly plagiarized. That presentation and all related presentations from the three CEFTS conferences to date are linked off of the AOC's EFiling "Previous Events" home page <http://www.courtinfo.ca.gov/programs/efiling/previous.htm> (describing the Smith Presentation as "a brief history of electronic filing in California and its e-filing program"). *See generally* the Judicial Council's "Electronic Filing in California" home page, available at <http://www.courtinfo.ca.gov/programs/efiling/>.

[10] <http://www.gao.gov/new.items/d02327.pdf>, at 3-4.

As noted in the same GAO report, flexible but complete transfer protocol permits interoperability[11] between disparate computer systems and is essential if the potential benefits available from electronic filing are to be realized by:

- all parties or agencies receiving or sending information to or from administrative agencies' or courts' efiling systems; and/or
- any systems using or further distributing data derived from the efiling systems.

Currently, the most promising transfer protocol developments are ones using markup languages, such as Extensible Markup Language (XML),[12] available at <http://www.w3.org/XML/>, for tagging the contents of all records. XML <http://www.gao.gov/new.items/d02327.pdf> "is a flexible, nonproprietary set of standards for annotating or 'tagging' information so that it can be transmitted over a network such as the Internet and readily interpreted by disparate computer systems."[13] The above-mentioned informative report about what XML is and what it does was recently published by the GAO.

XML was recently endorsed in proposed draft efiling standards[14] released for comments by a joint project of two nationwide court management associations under the auspices of the National Center for State Courts (NCSC).[15] Yet, disappointingly, few state or federal administrative agencies are devoting trenchant efforts to development or adoption of a markup language.[16] There have been only sporadic efforts in some federal agencies to use XML.

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[11] The GAO, in page 2 of its recent report <http://www.gao.gov/new.items/d02327.pdf> on the challenges the Federal Government faces in implementing Extensible Markup Language (XML), defines "interoperability" as "the ability of two or more systems or components to exchange information and to use information that has been exchanged."

[12] The World Wide Web Consortium (W3C) defines Extensible Markup Language (XML) as "the universal format for structured documents and data on the Web." <http://www.w3c.org/XML/> (last revised Aug. 20, 2003).

[13] <http://www.gao.gov/new.items/d02327.pdf>, at 2, PDF page 6.

[14] <http://www.ncsc.dni.us/ncsc/ctp/htdocs/pdfdocs/5-17-02%20For%20Posting%20_Final%20Working%20Draft%20EF%20Process%20Standards.pdf>

[15] On May 17, 2002, the National Center for State Courts' (NCSC) Joint Project of the Conference of State Court Administrators and the National Association for Court Management Technology Committee posted for public comment proposed "Standards for Electronic Filing Processes." ("Standards"). PDF and Word versions are linked off of the NCSC's Functional Standards Page, available at <http://www.ncsconline.org/D_Tech/Standards/Standards.htm>. The proposed standards are intended to provide a common model for state and federal trial and appellate court electronic filing processes. Standards at iii, PDF page 3, <http://www.ncsc.dni.us/ncsc/ctp/htdocs/pdfdocs/5-17-02%20For%20Posting%20_Final%20Working%20Draft%20EF%20Process%20Standards.pdf>.

[16] "No explicit government-wide strategy for XML adoption has been defined to guide agency implementation efforts and ensure that agency enterprise architectures address incorporation of XML." <http://www.gao.gov/new.items/d02327.pdf>, at 5.

Some courts, principally Delaware and Utah (which are not listed in the below table of state court activities), are two of the veteran efiling courts and have the most experience with the development and use of markup languages.[17] The language that the Utah project <http://xml.coverpages.org/utah-efiling1.html> initially adopted was SGML (Standard Generalized Markup Language), which, in light of later developments, is not the best choice.

More promising is an effort by a number of state court systems, including the California state courts' Judicial Council, to develop a supplement to XML, referred to as "legal" XML. *See* the "California Electronic Filing Technical Standards" <http://www.courtinfo.ca.gov/programs/efiling/standards.htm> home page and materials linked therefrom. Legal XML is a set of supplementary specifications that accommodate information in electronic form that is received, generated or distributed by courts or judicial agencies. *See* GAO Report, at 29, 36, 41-42, PDF pp. 33, 37, 45-46.

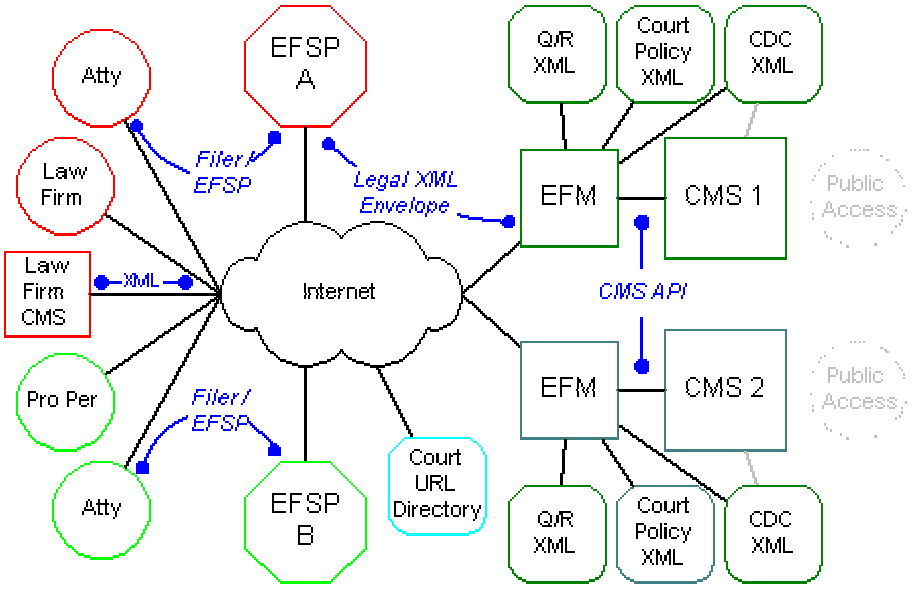
Recently the legal XML project has been folded into the Organization for the Advancement of Structured Information Standards (OASIS). *Id.* at 32, 37, 40, 50-51, PDF pp. 36, 41, 44, 54-55. OASIS is an umbrella entity coordinating many of the efforts to develop XML protocols for most types of electronic information transfer, including ecommerce and a variety of activities of other interest groups with a need for a supplement to XML protocols. *Id.* Once the protocols for legal XML are completed and adopted, the implementation of judicial electronic filing should greatly accelerate. *Id.* at 29, 36, 41-42, PDF pp. 33, 40, 45-46.

A diagram of what is contemplated in California is probably an efficient illustration of an infrastructure that could accommodate state and federal judicial efiling in a world of diverse Case Management Systems (CMS). Smith Presentation <http://www.courtinfo.ca.gov/programs/efiling/documents/cefts3_introv2.ppt>, at slides 3-9. To that end, please see Figure 1 below, reproduced—with permission—from slide 8 of the Smith Presentation.

Figure 1 on the next page does not explicitly take into account the myriad of local, state and federal agencies that send or receive information to or from courts. The symbols on the extreme left reflect the filers in the court system. The hexagons represent third party electronic filing service providers (if the court elects to permit the use of filing intermediaries). EFM is the court's electronic file manager, which interfaces with the court's CMS.

[17] "No explicit government-wide strategy for XML adoption has been defined to guide agency implementation efforts and ensure that agency enterprise architectures address incorporation of XML." <http://www.gao.gov/new.items/d02327.pdf>, at 5.

Figure 1.



Some helpful definitions for use in understanding Figure 1 (*excerpted in part from the Smith Presentation*):

- **EFM-CMS API.** The major problem realized to this point is that interfacing anything to court CMS's is time consuming and expensive - especially in California, which has a great diversity of CMS configuration. The California Electronic Filing Standards Program (CEFTS) program, <http://www.courtinfo.ca.gov/programs/efiling/standards.htm> responded by developing a requirements document[18] for a standard API. Legal XML has adopted that work.

- **Court Policy XML.** Lets a court tell the world what its policies are (e.g., types of filings accepted, filing hours), which Court Filing options it supports, etc. These things are expressed in XML.

- **Query/Response XML.** Lets a court specify the information it will provide to the outside world. Some queries will be universal (normative), some unique; courts don't have to necessarily support either.

- **CDC XML.** Court Data Configuration XML is associated with the EFM-CMS API. The CMS publishes (in XML) what it needs by way of data elements for every type of filing it can process. The EFM and Electronic Filing Service Provider (EFSP) applications configure themselves based on this information. Smith Presentation, <http://www.courtinfo.ca.gov/programs/efiling/documents/cefts3_introv2.ppt>, at slide 6.

- **Court URL Directory.** List operated by the Judicial Council of California's Administrative Office of the Courts (AOC) <www.courtinfo.ca.gov/courtadmin/aoc/> and maintained by various courts, telling the world of their respective CMS(s)' URLs and of case types handled.

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18 <www.courtinfo.ca.gov/programs/efiling/documents/2gefs_conditions_for_participation_ver2pub_2002_10_09.doc>

2. Electronic Filing in State Courts

The National Center for State Courts, <www.ncsconline.org/> has posted the following table <http://www.ncsc.dni.us/NCSC/TIS/TIS99/ELECTR99/Efilinglinks.htm> (as of March 18, 2002) linking to, and describing, 20 or more states' efiling projects

(***** = link—and, in spots, ensuing description, updated from original):

Electronic Filing

Feedback	Request Form	Index	Home

E-Filing Links

More and more states are offering electronic filing of court papers. If you know of any additional sites, please e-mail us.

E-Filing by State

|A| |C| |D| |F| |G| |H| |I| |K| |L| |M|
|N| |O| |P| |R| |S| |T| |U| |V| |W|

Arizona — **E-filer** - The Arizona Court of Appeals Division Two accepts electronically filed documents at the Appellate level.

California — **Press Release** - Pilot project takes a different, scaled back approach. Orange County Superior Court and West Group Suspend Development of Electronic Filing Pilot Project. **Orange County Superior Court**

Small Claims Court - Superior Court of California, County of Sacramento. "Have you filed a claim on the Internet before?

Colorado — **IIS Projects Colorado Courts*** - First in Nation to Offer Statewide E-filing in Civil and Domestic Cases.

Delaware — **Electronic filing and Docketing*** - In 1991, the Superior Court of Delaware created the very first electronic docketing and filing system for civil cases in the United States. The system is called CLAD which stands for Complex Litigation Automated Docket.

CD Briefs and appendices* - The Delaware Superior Court is the first state court to adopt a rule (Civil Rule 107(h)) which allows parties to file briefs and appendices with the court on hyperlinked CD-ROM disks.

Georgia — **E-Filing** - The door is open to file court documents electronically at the **Chatham County Courthouse** in Savannah, Georgia.

Kansas — **Third Judicial District Court Electronic Filing Project**. Electronic filing project in **Shawnee County Court** in Kansas. **Press Releases** (January 1998 forward).

Michigan — **Washtenaw County Trial Court Electronic Filing**. Filing a legal brief for a civil division trial could be an e-mail attachment in **Washtenaw County, Michigan**.

New Hampshire	**New Hampshire Tobacco Litigation**. View any publicly accessible document filed in the consolidated tobacco litigation currently pending in the New Hampshire Superior Court.
New Jersey	**JEFIS** -- Statewide Judiciary Electronic Filing System (Special Civil Part) - New Jersey's electronic filing system. At this time, you must be an attorney in order to participate in the JEFIS program.
New Mexico	**Electronic Filing Project*** - [As of March 21, 2001, the] New Mexico Supreme Court [and the 11th Judicial District had planned to] provide a common interface over the Web that [would] allow attorneys, judges, and other court personnel to file court documents electronically. [However, per the **2002 Annual Report of the State Bar's Technology Utilization Commitee**, "legislative funding for the experimental program by the State Supreme Court and the 11th Judicial District was inadequate to proceed."]*
New York	**Filing by Electronic Means** - New York State Unified Court System program under which some legal papers in civil lawsuits may be filed electronically.
North Carolina	**North Carolina Appellate Courts** Document Library and Supreme Court of North Carolina Electronic Filing Site.
Ohio	**CourtNET [*see, e.g.,* Canton (Rule 1.15 (A), "Electronic Filing by Computer") and Cleveland Heights municipal courts]** - a subscription based service providing the ability to electronically file civil documents with participating municipal courts in Ohio. **Electronic Filing** - The Hamilton County Clerk of Courts Electronic Filing permits the filing of certain types of documents.
Pennsylvania	**Allegheny County Prothonotary** - Electronic filing and retrieval system. **Civil Mental Health Electronic Filing Program** (July 2001)
Washington D.C.	**Electronic Case Filing** - The Administrative Office of the U.S. Courts selected the **U.S. Court for D.C.** as one of the courts to pilot the Case Management/Electronic Case Filing (CM/ECF) system. **E-Filing Project** - D.C. Superior Court Mandates Use of Cour[t]link Electronic Filing Service in Pilot Project to Manage Complex Civil Case

The above table is the NCSC's self-described attempt to provide current information about all state court efiling projects. There are, however, a few other state or local courts, *e.g.*, Utah <http://xml.coverpages.org/utah-efiling1.html>, using efiling, but whose projects are not linked off of the above table.[19]

3. Electronic Filing in Federal Courts

Based on the latest federal judiciary data, all federal district courts are scheduled to be efiling courts by sometime in 2005, and the federal circuit courts will commence efiling implementation in late 2004. <www.uscourts.gov/cmecf/cmecf_about.html>

Currently, the federal courts fall into three categories:

- Virtually every court has at least an electronic docket (edocket) system. Therefore, anyone – with a browser and an account with the Federal Judiciary's Public Access to Court Electronic Records (PACER) service – can find and view any civil case's docket sheet over the web for only $.07/page.

- A number of other courts have edockets that provide links to PDF versions of all court-generated pleadings (especially orders), again for only $.07/page.

- Still other courts have PACER-available edockets that additionally provide links to all non-sealed pleadings efiled by the parties.

The status of electronic filing in the federal court system as of November 2002 is described in detail on the website of the Administrative Office of the U.S. Courts <www.uscourts.gov/cmecf/cmecf_about.html> as follows:

> **CASE MANAGEMENT/ELECTRONIC CASE FILES (CM/ECF)**
> **NOVEMBER 2002**
>
> The federal judiciary is now well underway with the nationwide implementation of its new Case Management/Electronic Case Files (CM/ECF) systems. CM/ECF not only replaces the courts' aging electronic docketing and case management systems, but also provides courts the capability to have case file documents in electronic format, and to accept filings over the Internet if they choose to do so.
>
> CM/ECF systems are now in use in ten district courts, forty bankruptcy courts, and the Court of International Trade. Most of these courts are accepting electronic filings. More than 3 million cases with more than 14 million documents are on CM/ECF systems. And more than 20,000 attorneys and others have filed documents over the Internet. Under current plans, the number of CM/ECF courts will increase steadily each month into 2005.

[19] Plans for court efiling are underway in a large number of state courts. A Google search on "courts and electronic filing" produces over 140,000 hits containing links to a broad variety of information about judicial efiling activities.

> Each court goes through an implementation process that takes about 10 months, and each month four to five additional courts complete the process.
>
> Attorneys practicing in courts offering the electronic filing capability are able to file documents directly with the court over the Internet. . . .
>
> The national roll-out of the CM/ECF system for bankruptcy courts started in March 2001, and is scheduled to take two to three years. The CM/ECF system for district courts began to roll out nationally in May 2002. Implementation of the CM/ECF system for appellate courts is currently scheduled to begin in late 2004.

The above quote and the data that follows it can be summarized as follows:

- ECF systems are in use in 25 of the 97 district courts, in 60 of the 95 bankruptcy courts, and in the Court of International Trade and Court of Claims.

- An additional 32 district courts and 31 bankruptcy courts are in the process of implementing ECF.

Thus, at the end of the current implementation phase, ECF will encompass a total of 150 federal courts – two specialized, 57 districts and 91 bankruptcy.

Thus far federal court electronic filing has been implemented without using markup language. Instead ECF makes extensive use of imaging to convert paper-based information into electronic images.[20] ECF/CM, including the system being used in the United States District Court for the Northern District of California, requires use of Adobe's Acrobat Portable Document Format (pdf) imaging for every to-be-efiled document. Most significantly, Adobe's higher-level version of Acrobat has a "PDF Writer" feature, which converts a word processing file into a unique type of PDF image file. Although the created file – sometimes called "PDF Normal" [21] – cannot be modified, it retains two key attributes of a word processing file: full-text searching; and blocks of text can later be copied by a party or the court for pasting into a new word processing file.

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[20] While it would be much less burdensome and consumptive of electronic storage to file in a word-processing format, such files can be easily altered. Images of documents produced by word processors, cannot be altered without being detected. With the limitations of current technology, images are the only feasible format for the time being. Unfortunately images of printed documents cannot be electronically searched.

[21] Paul K. Schulte, TechSoup.Org, "Using the Internet Guide; "What options do different PDF formats give me?" (May 2002) <http://www.techsoup.org/community/qod_answer.cfm?qotdid=162>.

When a document is efiled, typically service occurs automatically moments later. In a Notice of Electronic Filing, the court's ECF/CM system e-mails all counsel of record a description of, and link to, the new pleading. A party need not manually serve the other parties. Moreover, the N.D. Cal. has increased the pressure on all attorneys to become registered efilers by a new practice: a court order is no longer manually served, but is instead posted on the edocket and linked to in a notification e-mail.

Once legal XML or some other markup language is adopted, it can be expected that the federal courts will update the CM/ECF systems and require filings to use the accepted information transfer protocols that are being developed. Federal courts are centrally administered; thus, the political and cultural resistance to a single CM/ECF system should be a lot less than in state courts like California, where the courts of general jurisdiction are administered by the counties or other decentralized hierarchies.[22]

C. Electronic Filing in Governmental agencies

Since the mid to late 1990's all varieties of governmental agencies at all levels of government have considered and embraced the use of the Internet to better service their constituencies.[23]

1. Federal Governmental agencies

The Federal government has developed a number of web portals to facilitate direct dealings with the private sector.[24] Current administration strategy is the subject of a February 27, 2002 Office of Management and Budget (OMB) task force report <http://www.whitehouse.gov/omb/inforeg/egovstrategy.pdf>. An excerpt from the Executive Summary of that report summarizes the level of Federal Governmental agencies' interest:

> Federal information technology (IT) spending in the United States will exceed $48 billion in 2002 and $52 billion in 2003. That level of IT spending provides enormous opportunities for making the transformation government into a citizen-centered Egovernment. Indeed, a good portion of current federal IT spending is devoted to Internet initiatives, yielding over 35 million web pages online at over 22,000 web sites. But past agency-centered IT approaches have limited the government's productivity gains and ability to serve citizens.

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[22] In the case of California there are 58 different county court systems.

[23] *See, e.g.*, the United States Department of Labor (DOL) interactive "elaws Advisors" <http://www.dol.gov/elaws/see_adv.asp?subset=ID>0>. *See also* Margaret Kane, "Web site to put gov't rules under one roof" <http://news.com.com/2100-1017-903327.html> (CNET News.com 5/8/02) ("U.S. government is developing a Web portal that would give citizens one access point to read up on and comment on federal rules and regulations from multiple agencies").

[24] Surf <http://www.firstgov.gov/> and some of the sites linked off of that website to see examples of the federal government's adoption of on-line government services based on electronic record systems.

> As highlighted in this report, the federal government is poised to transform the way it does business with citizens through the use of Egovernment.

This report presents the federal government's action plan for Egovernment. The primary goals for the President's "Expanding Egovernment" initiative are to:

- Make it easy for citizens to obtain service and interact with the federal government;
- Improve government efficiency and effectiveness; and
- Improve government's responsiveness to citizens.

As with efiling in courts, efiling in federal agencies faces some challenges when it comes to information transfer. An excerpt from the Executive Summary of the United States General Accounting Office April 5, 2002 report on "Electronic Government - The Challenges to Effective Adoption of Extensible Markup Language" says:

> Advances in the use of IT-especially the rise of the Internet-are changing the way private sector businesses, governmental agencies, and other organizations communicate, exchange information, and conduct business among themselves and with the public. The Internet offers the opportunity for a much broader and more immediate exchange of information than was previously possible, because it provides a virtually universal communications link to a multitude of disparate systems. However, although the Internet can facilitate the exchange of information, much of the information displayed to users is delivered only as a stream of computer code to be visually displayed by Web browsers, such as Internet Explorer or Netscape Communicator. For example, an economist might visit a Web page that displayed statistical information about the production of various agricultural commodities over a number of years. Typically, such a Web page would only display this information to the economist to examine visually on his or her computer screen. Without special translation software, it would likely be difficult for the economist to transfer the information to a separate computer program for further statistical analyses. (*See* GAO Report, <http://www.gao.gov/new.items/d02327.pdf> at 2, PDF p. 6; *see also* discussion in Section III(c)(3) below regarding the "Implementation and Limitations of Electronic Filing by Governmental agencies.")

2. State Governmental agencies

State governments' attitude is exemplified by the egovernment initiative of California. The California's Department of General Services' (DGS) Statewide eGovernment Initiatives Office (eInitiatives Office) envisions itself as "a primary catalyst for California state and local agencies seeking to improve their customer relationships through effective and expanded services." <www.einitiatives.dgs.ca.gov/default.html>

"My California" is the state portal where any person or business can easily design a personal portal to California government. Once one clicks on "Personalize this page" at <http://my.ca.gov/state/portal/myca_homepage.jsp>, he or she can select from an elaborate menu of choices to create a custom Homepage with direct links to an array of California government sites. The "My California" Homepage for one of the authors includes the following links *(some names abbreviated for this paper)*:

State Phone Directory	**California Resources**	**California Legislature**
California Business Search	**California Courts**	**Constitutions, Laws & Regs.**
California Business Laws	**California Agencies**	**Commuter's Link**
E-Commerce & High Tech	**Local Government**	**California's Travel Center**

Note that clicking on the "Local Government" link – whose full title is "Local Government and California's Tribes"[25] – takes the surfer to a page of links, including:

- **City Government** <http://www.cacities.org/cities_online/cities_online.asp> (database of links to California cities' home pages); and
- **County Government** <http://www.csac.counties.org/counties_close_up/county_web/index.html> page of links to all 58 California Counties' websites).

3. Implementation and Limitations of Efiling by Governmental agencies

The functionality of egovernment, both Federal and state, can be categorized as consisting of three phases:

- Phase I entails creating web pages to disseminate information about the agency and its activities with no interactive capability, in other words using the Internet as a publisher only.
- Phase II entails not only using the Internet to publish, but also creating the ability of the citizen to submit transactions to the agency. Submitted information is processed and responded to more or less off-line using traditional means of the telephone or mail.

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25 <http://www.ca.gov/state/portal/myca_leftnav_categories.jsp?BV_SessionID=@@@@1582117745.1069710673@@@@&BV_EngineID=dadciljdghhhbemgcfkmchchi.0&sLeftNavCategoryPath=%2fNavigation%2fGovernment%2fLocal+Government+and+Californias+Tribes&sNavTitle=Local+Government+and+California's+Tribes>

- Phase III is creating an interactive web site that publishes, receives transactions, processes transactions and responds on-line in real time.[26]

Most government agency websites are in Phase I, which does not use efiling. A minority of agency websites are in Phase II, which does use efiling. Very few agencies are in Phase III, which makes extensive use of efiling.

The use of digital technologies to ease regulatory compliance" was examined in the "Electronic Commerce & Business Regulation" section of a "Special Report" recently published by the Progress & Freedom Foundation (PFF). *See* Kent Lassman, "*The Digital State 2002; How State Governments Use Digital Technology*," at 13 (Nov. 2002) (5th annual "PFF Report") <www.pff.org/publications/ecommerce/digitalstate2002.pdf>. They "asked about the number and type of forms and applications that are online and can be submitted and paid online [and also] asked states about their procurement . . . policies." *Id.* The results in this regard were mixed, reflecting in pertinent part that:

- "In nearly three of four states, fewer than half of the payments associated with online forms can be made electronically [, although a] majority of states [do] post nearly all, or all, of their forms online.

- . . . [Only t]hree states have extensive electronic procurement systems in place[. However, a] near majority of states are poised for dramatic change in this area[,] having established pilot projects and the necessary requirements and standards for e-procurement."

Id.

It appears that few, if any, governmental agencies have adopted any markup languages in any manner other than for displaying information on their websites. Thus, the websites they have created are still rather rudimentary. Yet, because they control the forms that are filled out on-line, governmental agencies can achieve more of the benefits of efiling than can courts. The GAO's recent report [at page 5, PDF p. 9] <www.gao.gov/new.items/d02327.pdf> concluded that, in so far as the Federal government's use of XML, there are many challenges to be overcome:

> No explicit government wide strategy for XML adoption has been defined….

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[26] *Cf.* Kent Lassman, The Progress & Freedom Foundation, "*The Digital State 2002; How State Governments Use Digital Technology*," <http://www.pff.org/publications/ecommerce/digitalstate2002.pdf> at 5 (Nov. 2002), fifth annual Special Report, categorizing the phases of the advent of egovernment as: 1) "the posting of information on web pages;" 2) the "allow[ing of] all sorts of government transactions to be conducted online" via "private sector innovations [borrowed from] 'e-commerce';" 3) the ongoing "transformation of government processes" being driven by "transaction-based improvements;" and 4) the transformation of state government "institutions themselves).

Some of the report's findings are summarized in the PFF's Nov. 4, 2002 News Release, <http://www.pff.org/news/news/2002/110402arizona.html >.

> The needs of federal agencies have not been uniformly identified and consolidated so that they can be represented effectively before key standard-setting bodies….
>
> The government has not yet established a registry of government-unique XML data structures (such as data element tags and associated data definitions) that system developers can consult when building or modifying XML-based systems….
>
> Much also needs to be done to ensure that agencies address XML implementation through enterprise architectures so that they can maximize XML's benefits and forestall costly future reworking of their systems.
>
> GAO is making recommendations to the director, Office of Management and Budget (OMB), to enhance federal planning for adoption of XML.

All that having been said, the absence of information transfer standards does not appear to have inhibited continued expansion of the use of the Internet or efiling by governmental agencies.[27]

III. GENERALLY, WHAT ARE THE IMPLICATIONS OF EFILING?

A. Paper-Based Record Systems

Transmitting/sending agencies and parties generally create paper-based records of information they have filed with, or sent to, the courts. Courts have created paper-based systems, which attempt to organize and store those billions of documents[28] as well as the huge number of documents generated by the courts. Those filings and their underlying judicial proceedings trigger literally thousands of government social services and private actions. Information contained in the courts' record systems is manually extracted, and transferred to all the agencies and parties that are dependent on information from the courts' records. In addition to creating paper-based filing systems in which to store, and from which to retrieve, documents sent to the court, the court staff manually extracts and keys in certain information from those filings for use in the court's case management systems (CMS).

Receiving agencies and parties create record systems (generally paper-based), from which information is extracted and passed on to other parties and agencies whose functions are dependent on the information received from the first tier of receiving agencies and parties. Each subsequent receiving agency and party further proliferates

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[27] The terrorist events of September 11, 2001 have resulted in an effort to reassess the benefits and risks of making available, on the Internet and otherwise, certain public infrastructure information that has been published by governmental agencies.

[28] One commentator has reported there were "90 million cases filed in the nation's 17,500 courts each year [that] generate more than 1.5 billion documents." Tom O'Connor, "Efiling: Who's Doing What," *New York Law Journal* (July 2, 2001), at T 7.

the information. The process of receiving information, creating additional record systems, and extracting and disseminating information is repeated over and over again by a multitude of people and agencies. Each exchange is not only labor-intensive (and often expensive and boring), but also presents numerous opportunities to introduce errors into the succeeding record systems. The need for unprompted humans to initiate action leads to incomplete information as well as misfiling of the initial records from which the information originated.

As stated earlier, governmental agencies have created paper-based record systems that are more dispersed but which have many of the same needs to provide other agencies and members of the public with information contained in the paper-based record system. The same limitations and opportunities for errors are present in government agency paper-based record systems.

B. Retrieval of Information from Paper-Based Record Systems

Retrieval of records from paper-based systems is dependent on identifying the universe of files likely to contain the information to be retrieved. Once the universe is identified, the records in that universe must be located and manually reviewed to identify the specific document that contains the needed information. Lastly, the needed information must be located in the document and extracted or reviewed. Often further arrangements have to be made for copying the document, delivering it to the person or organization making the request and correctly refiling the original record.

C. Record Systems for Electronic Documents

When electronic filing is fully implemented, there will be no paper-based record systems.[29] Information in electronic record systems will be collected, recorded, searched and distributed electronically. Assuming seekers of those records are authorized to have access, a nearly unlimited number of people and agencies can have simultaneous access to the electronic records. Because such records will not be moved about from place to place or person to person, there is little likelihood they will be misfiled. They can be available at all hours, whether the court or government agency is open or closed. Because the information from those records will be automatically distributed electronically to parties and receiving agencies, the potential for errors is greatly reduced.

No longer do information seekers need to manually search through file drawers or racks for binders or folders to locate information in paper records. Instead the searching can be done electronically and remotely. To give some idea of the potential differences in efficiency, consider the speed of modern electronic search engines used on the Internet. A search using Google (a popular Internet search engine) on the phrase “electronic filing courts” produced over 140,000 hits with links to documents on the Internet in .16 of a second.

[29] To get a paper record, the electronic record will be used to produce a hard copy.

One of the authors over the last 15 years has maintained duplicate paper and electronic records of pleading filed in most large cases on which he has worked. With less than scientific rigor, he has from time to time compared how long it took to locate specific information in a paper pleading binder and in an electronic equivalent to a pleading binder. Starting only with the knowledge of what information was needed, on average, it took 25 minutes for the paper pleading binder and 20 seconds for the electronic pleading binder.

Focusing on court-related documents, without belaboring the point, think about the efficiency of linking to, excerpting or quoting from previous pleadings and court decisions. Any electronic file can be easily linked to any other file being created. Think about how many duplicate "working files" are kept by the many lawyers working on a matter.[30] Think about the time and effort expended by law firm and court staff in filing, storing, retrieving, copying and refiling copied documents. Compare that to what happens when the information is contained in an electronic file that is automatically created and stored in electronic form at the time of the filing. There is retrievability by a nearly unlimited number of searchers simultaneously around the clock. There is no need to re-file because the file is never moved. Those thoughts, and the follow-on brilliant insights you will have will begin to give you some idea of why universally mandated electronic filing is probably inevitable.

Courts have no place to store the documents they are receiving. They have inadequate staff and financial resources to handle the paper.[31] Yet they have a legal obligation to not only receive, process and store those documents, but also, in most instances, make them available to the public. Governmental agencies have the same or similar problems, but most don't have the volume of paper with which courts must work.

As stated in *Section II (B)(2)* above, most of the current court efiling systems are based on un-searchable images and, in a few instances, word processing documents.[32] That deficiency can be expected to fade rapidly in this decade, as the maturing systems will use more sophisticated imaging and data transfer protocols, such as XML or others, to achieve the promise that has been so long held out. Once the trial courts have mature systems, the utilization in appellate courts will not only take less time but will also streamline creation of records on appeal - compounding the receiving, processing, storing and retrieving advantages.[33]

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[30] The problem is more acute if lawyers in more than one office location are working on the same matter and need access to the same documents.

[31] Tom O'Connor, "Efiling: Who's Doing What?," *New York Law Journal* (July 2, 2001), at T 7, reports: "An estimated $11 billion is spent on delivering documents to the courts and it costs more than $2.5 billion annually to pay for storage. Personnel costs associated with paper filing can account for as much as 90 percent of a court's operating budget."

[32] California's Alameda County Superior Court's Domain Web <http://www.co.alameda.ca.us/cgi-forte/fortecgi.exe?ServiceName=DomainWebService&TemplateName=index.html> is an example of a current generation efiling system.

[33] It is quite probable that the record on appeal will be a list of links to files in the trial court electronic record.

There are some important unresolved social and legal issues, such as privacy[34] and access,[35] but they will likely be worked out by trial, error and public dialogue.

IV. WHAT ARE SOME OF THE MORE SPECIFIC IMPLICATIONS OF EFILING?

Any effort to chronicle all of the ramifications and impacts of the adoption of electronic filing to replace the paper filing systems[36] is considerably beyond the scope of this paper and would require omniscience not possessed by the authors. However, there are some important specific implications that do not require speculation so gross as to be incredible. This section is an effort to describe briefly the more obvious impacts that Courts, Lawyers, Clients, Citizens and Governments can expect.

A. Courts

1. From Depositories to Publishers

Courts are depositories of publicly available records relating to all manner of disputes. Each specific dispute yields an outcome regarding the parties. In addition, the records of the dispute and its resolution (if the opinion is published) provide some predictability about how future disputes involving the same legal issue and similar facts will be resolved, if brought to the court.

Most state and federal constitutions or laws mandate that court proceeding and records be made public. *See* National Center for State Courts' "State Law & Policy"<http://ctl.ncsc.dni.us/publicaccess/states.htm> links for each of the 50 states. Thus, in the current paper-based record systems, if one goes to the specific court at the specific location where the legal proceedings are being or have been held, one can request to see (and most often copy) the paper record containing the sought information—barring some legislative or court rule restrictions on a limited proportion of records relating primarily to juvenile proceedings, and in some cases family court records. *See* Center for Democracy & Technology (CDT), "*A Quiet Revolution in the Courts: Electronic Access to State Court Records*" (July 1, 2002) <http://www.cdt.org/publications/020821courtrecords.shtml>. Requiring physical presence to request from a specific court's staff the documents containing the information being sought creates significant constraints on widespread dissemination of almost all information in the courts' files.

Those constraints on court records are quite reasonable when court record systems are paper-based. In contrast, with electronic court record systems, there is no

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[34] *See* discussion in *Section IV(C)* below concerning the impact of efiling on citizens for a partial description of the privacy issues.

[35] In most of the court efiling projects that have been implemented, there are plans for a kiosk or terminal in the courthouse that can be used to file pleadings and/or access the electronic files. Presumably, comparable facilities will be provided by governmental agencies that are obligated to receiving and making paper records available at their offices.

[36] It should be kept in mind that governmental paper-based record systems have been evolving for hundreds of years while most governmental electronic record systems are less than ten years old.

structural impediment to having remote access through the Internet or some other network. Furthermore, most, if not all, current judicial efiling projects are planning or mandating remote access to case records.[37] When courts make their electronic records available remotely, they effectively become publishers (as well as depositories). Because the experience with electronic filing to date is inadequate to indicate the full ramifications of this transition for the courts or the public, more time will be required to assess the impact. For sure, access to courts and the information in court files will be made much less burdensome.

Some people believe there will also be far-reaching implication for privacy. Concerns about privacy and access have motivated many courts to develop pertinent rules similar to those adopted this year by the California Judicial Council <http://www.courtinfo.ca.gov/courtadmin/jc/>.[38] Similar United States Judicial Conference concerns have triggered the promulgation of similar rules by multiple federal district courts. *See* U.S. Admin. Office of the Courts, *"Judicial Conference Approves Recommendations on Electronic Case File Availability and Internet Use*," News Release (Sep. 19, 2001) <http://www.uscourts.gov/Press_Releases/jc901a.pdf>. *See, e.g.,* N.D. Cal. General Order 53[39] (mandating redaction of "personal identifiers . . . from all pleadings and other papers filed with the Court in civil actions, including exhibits thereto, whether filed electronically or in paper"); D. Or. Local Rule 10.3 <http://www.ord.uscourts.gov/PersonalIdentifiers.pdf> (same).

2. Other Implications for the Courts

More courts are recognizing that they are service providers to their various constituencies. You will see more references by courts and courts' staff to parties and the public as being court customers or clients. Few courts are satisfied with the level of customer services they provide and the inefficiencies that pervade the judicial system. Most courts are trying, within severe resource constraints, to improve customer service. Efiling is believed to provide one of the greater opportunities for such improvements.

The impact on court staffing will be dramatic. Skill level and constant retooling will be mandatory. No doubt the extent of training and retraining of courts' staff is a valid concern, but it cannot be avoided. Staffing a Help Desk for a court's electronic filing system will be far different than staffing the counter in the clerk's office.

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[37] An interesting exception to the expansive scope of record availability is the Vermont Rules Governing Dissemination of Electronic Case Records, promulgated March 6, 2002 and effective on June 1, 2002. <http://www.vermontjudiciary.org/rules/proposed/ruleselectronic.htm>

[38] *See* Efiling Program's "*Reference*" page <www.courtinfo.ca.gov/programs/efiling/reference.htm>. The final Efiling rules adopted by the Judicial Council effective July 1, 2002 became California Rules of Court (C.R.C.) 2050-2060 <http://www.courtinfo.ca.gov/rules/titlefive/title5-3-190.htm>. *See also* the Court Technology Advisory Committee report <http://www.courtinfo.ca.gov/reference/documents/2070jcrp4.pdf> transmitting to the Judicial Council the recommended Rules (discussing many of the factors assessed during the more than six years of effort that went into developing those rules).

[39] <http://www.cand.uscourts.gov/cand/documents.nsf/60dc297abb01e63b8825645f006922f2/e1e04d0e30b5ce8188256bd00070f5bb/$FILE/Genl_ord.53.pdf>

Archiving court records will also be interesting. It is unlikely that courts will have the resources or inclination to convert into electronic records the files of matters pending or already resolved in the pre-efiling period.[40] Therefore, until the courts discard the pre-existing paper records, it is likely there will be two distinct archives that will contain case records.

Only a limited understanding of enterprise wide systems immediately sparks ideas about better management of judicial resources – ranging from juries, courtrooms, judicial staff and lawyers (see discussion in *Section IV(B)* below of the impact on lawyers).

With the instant availability of documents and information regarding pending matters, the courts' public profile and the quality of public relations required of the courts will escalate. It can be expected that court efforts to manage pending cases will be considerably more active. The court will be more able to take on the role of dispute manager as well as dispute resolver.

There should be enormous opportunities to reduce the "costs" portion of any appeal, which commercial printers are not likely to applaud. In general, the opportunities for streamlining the appellate process and the easy availability of the trial-level records to rapidly create the record on appeal, while attractive, will no doubt cause time management anxieties for judges and lawyers alike. In turn, there will be greater demands on judges and lawyers to better manage their time and matters.

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[40] Efiling programs do not generally apply retroactively to the thousands of pending cases. The typical federal ECF/CM program has initially consisted of a pilot project encompassing only certain civil cases "opened" (i.e., filed, transferred or removed) before certain judges, but has then subsequently expanded into a full-fledged program including all newly opened civil cases. *See, e.g.*, the following N.D. Cal. FAQ's description from the pertinent part of the <https://ecf.cand.uscourts.gov> site:

> "From the beginning of ECF on April 1, 2001 through December 31, 2002, this district restricted the kinds of civil cases in the program and only certain judges participated. On January 1, 2003, the program was expanded to all judges and all new **Civil** cases with the exception of **Sealed Civil** cases and all **Prisoner Pro-Se** cases.
>
> Currently, all **Criminal** cases are excluded entirely from ECF. The latest version of the ECF software does support Criminal docketing, but no cases will be started as (or moved to) efiling without full notification from the court.
>
> Sealed Cases, and Sealed Documents within ECF cases, are **excluded** from the e-filing program and must be filed entirely in paper."

<http://shorl.com/habrapomenydru> (shorlified deep link).

B. Lawyers and Law Offices

1. Overview of Days Gone By

Today's lawyers may not think about it much; but what we do, when and how we do it, how our offices are organized and staffed and, sometimes, where we are located is in fact dictated by how the courts and governmental agencies are organized and operate. Lawyer record-keeping systems (other than accounting records) have been designed to comply with mandates issued by courts, regulatory agencies and malpractice carriers. Even the organization and storage of non-pleading documents are by and large dictated by what statutes, regulations and rules require.

Most lawyers, whether in-house or in law firms, have elaborate paper-based record systems to assure compliance with court and government agency records requirements. Those paper-based records continue to accumulate and grow as the law office ages. File rooms and filing operations are significant resource devourers in most law offices. For inactive matters some practitioners are using microfilm, microfiche or other imaging technology for files that are being archived. However, most entities are using off-site warehouses and record storage firms to store paper-based files for completed cases or matters.[41] It does not seem to be too great an exaggeration to say that in the United States legal system the courts, governmental agencies and the lawyers are the record makers and keepers for our society.

2. Record-keeping, Organization and Management of Law Offices

Much of the legal and non-legal staff location and activity of law firms and in-house legal departments is driven by the need to create, distribute, organize, retrieve and maintain information in paper-based record systems. It is with this realization that one must begin to consider the implications for the members of the legal profession of remotely accessible electronic files replacing location-dependent paper files.[42]

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[41] The former partners of some of the failed large firms have found themselves continuing to pay storage fees for legacy files (in some cases for multiple years) until such files can be returned to clients or destroyed.

[42] One commentator has noted that:

> The key benefits of ECF include: twenty-four hour access to the documents, immediate creation of docket entries with the dockets updated simultaneously, less reliance on paper files [and] immediate notice of filings sent to opposing counsel. . . . By using ECF, a lawyer may file documents with the court at any time before the filing deadline, and from any place. Wherever a lawyer has Internet access, he may access ECF in order to file documents, or read documents filed by other parties. Given that all the documents filed with the court may be online, parties can theoretically undertake court actions, from filing the complaint to entry of final judgment, without printing a single piece of paper.

Michael E. Heintz, Note, "*The Digital Divide and Courtroom Technology: Can David Keep Up With Goliath?*," 54 Fed. Communics. L.J. 567, 574-75 (2002). The same benefits can be derived by law firms' maintenance of electronic case files accessible to attorneys and staff on firm networks, intranets and extranets.

Until efiling matures in its use of legal XML or some other standard markup language, the biggest challenges to lawyers will be to:

> (1) develop and train staff to use appropriate protocols for compliance with the individual requirements of the various courts and agencies before which they and their firms practice;
>
> (2) train legal and non-legal staff in how to prepare, perform and preserve electronic filings; and
>
> (3) design an office electronic filing system that will provide an orderly means to internally file, maintain and retrieve copies of the electronically filed records.

Experience to date indicates that each court's and governmental agency's system is likely to be different. Even in the federal district courts, which are using the same CM/ECF system, there are variations in the compliance requirements.[43] Differences in state and county courts will likely be even greater.

A review of General Order 45[44] and California Rules of Court (C.R.C.) 2050-2060 <http://www.courtinfo.ca.gov/rules/titlefive/title5-3-190.htm> for electronic filing illustrates why law offices will need to supplement their record keeping systems to accommodate the initial versions of court electronic filings systems currently in use. Only with the adoption of uniform markup language specifications will there be significant relief from having a variety of requirements and maybe more importantly a variety of interfaces.

During the period when the various court and governmental agencies' efiling system are so disparate and evolving, law offices may need to create what is nothing more than an electronic filing system that mimics the paper-based systems currently in use. It is not going to be acceptable to rely on the courts' and agencies' systems to provide repeated access to pleadings and other documents for a number of reasons:

> (1) Efiling information technology is new to most courts and governmental agencies, and its implementation is likely to be spotty.
>
> (2) Some courts and agencies are dependent on counties or other agencies for their information technology at a time when the core competency of those other agencies is not likely to be maintaining efiling systems for others.
>
> (3) It is not clear that all agency and court-operated depositories will be available 7 days a week 24 hours a day.

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[43] Efiling requirements are a bit different in the United States District Court for the Northern District of California (N.D. Cal.) and in the United States District Court for the District of Columbia (D.D.C.). Thus, there are differences between the authors' firm's N.D. Cal. Protocol and D.D.C. Protocol.

[44] <http://www.cand.uscourts.gov/cand/documents.nsf/60dc297abb01e63b8825645f006922f2/6553db7b7b78b6a38825670e00622731/$FILE/go45%20formatted.pdf>

(4) Court security, backup and recovery systems are unlikely to be uniform or (initially) sufficiently reliable for private parties to be comfortable.

(5) In response to emergencies and disasters, it will be reasonable for courts and agencies to triage third-party user requests, with vital internal functions taking priority over remote access sought by third-parties.

(6) The software interface for court and agency systems will neither be browser-based nor uniform, whereas a law office will want a system with a uniform user interface that provides access to all efiled documents.

(7) Malpractice carriers may insist that a law office maintain its own copies of filed information.

(8) If the federal court experience is any indicator, using only the courts' or agencies' depositories will be quite expensive.[45]

Eventually, when the migration to efiling is complete, there will likely be dramatic changes in law office organization and record keeping. The extent to which those changes will affect law office management is less clear. As stated earlier, the organization of law offices is mostly dictated by paper-based record keeping systems. When efiling's impacts dovetail with the move to electronic communication (using voicemail, email, instant messaging and their successors) it is not difficult to imagine a nearly paperless law office.[46]

Even without widespread adoption of efiling, computerized file management systems have become a necessity for most large law offices. Those systems originated for the purpose of finding files that generate paper records. In addition, it is the paper records that are organized by client and matter and are the "official" firm files. Computerized law office file management systems, to the extent they are being used,[47]

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[45] The District Courts for the Northern District of California and the District of Columbia are using the Public Access to Court Electronic Records (PACER) service to make efiled documents available to litigants and to the general public. For each attorney of record, one access to a filed pleadings is free. However, starting later this year, for each subsequent access, each of those two courts will begin charging attorneys the general public price of "seven cents [$.07] per page, with a maximum cost per document of $2.10." "About CM/ECF" <http://www.uscourts.gov/cmecf/cmecf_about.html>. In the N.D. Cal., subsequent access "[b]illing will begin with the release of Version 1 of the [efiling] software,… expected during the summer of 2002." "How do PACER and E-filing fit together?" <https://ecf.cand.uscourts.gov/cand/index_faq.html>. In the D.D.C., such billing began on July 1, 2002. "ECF/PACER Login . . . Instructions" <https://ecf.dcd.uscourts.gov/cgi-bin/login.pl>.

[46] Most of the paper that will be created will be caused by the distaste some lawyers have for screen reading and their resistance to editing electronically. In that whatever paper is generated will mostly consist of intermediate drafts, it will likely be discarded (particularly as a prophylactic response to the increased tendency to serve law firms with subpoenas to obtain documents allegedly relevant to a dispute).

[47] Not many smaller law offices have such file management systems. They rely on the lawyers or staff to remember where the electronic files are located on their hard disks or servers.

have not been designed to efficiently organize and manage information by client or matter. The authors are aware of no law office file management system that uses markup language to create electronic versions of client and matter files. All steps - including access control for highly confidential matters—must all be done manually and the electronic documents will have to be properly labeled, indexed, etc.

Law office staffs that currently organize and maintain the paper-based record systems are going to need additional training and skills to handle records of electronically filed documents. Some day, the courts and governmental agencies will have adopted and implemented the use of markup language. Then, practitioners filing electronically will be using software to convert their word processing documents to legal XML (or its successor) to put all documents prepared for filing or service into the appropriate filing formats. Hopefully law office file management systems will also be legal XML enabled so law office electronic files can be automatically organized.

3. Increased Demand for Direct Interaction between Citizens and Government Entities (without attorney intermediaries)

One primary objective of efiling in courts and governmental agencies is to improve the service provided to their constituencies. California's eInitiatives Office's "About Us" page <www.einitiatives.dgs.ca.gov/aboutus.html> states that:

> The Office . . . researches and develops pilot projects that demonstrate how the Internet can help State agencies better serve their customers. The emphasis is on using Web-based services across multiple State agencies to streamline transactions and be more responsive to businesses and citizens.

At the federal level the "firstgov" <http://www.firstgov.gov/> website says:

> The New FirstGov.gov. Welcome from President Bush. The Official Government Gateway for Citizens interacting with Government, Business interacting with Government, Government interacting with Government.

The OMB Report <www.whitehouse.gov/omb/inforeg/egovstrategy.pdf>, at page 1 (PDF page 4), states:

> This report presents the federal government's action plan for Egovernment. The primary goals for the President's "Expanding Egovernment" initiative are to:
>
> - Make it easy for citizens to obtain service and interact with the federal government;
> - Improve government efficiency and effectiveness; and
> - Improve government's responsiveness to citizens.

Later the OMB Report, <http://www.whitehouse.gov/omb/inforeg/egovstrategy.pdf> at page 4 (PDF page 7), discussing the value of Egovernment, states (emphasis added):

> Egovernment provides many opportunities to improve the quality of service to the citizen. Citizens should be able to get service or information in minutes or hours, versus today's standard of days or weeks. Citizens, businesses and state and local governments should be able to file required reports *without having to hire accountants and lawyers.*

Much of the demand for legal services in the United States stems from the need for intermediaries between the government institutions and either the citizens or their business entities. The very high per capita number of lawyers to citizens in the United States is attributable to citizens' need to interact with the enormous number of instrumentalities created by all levels of government to carry out the governmental functions mandated by the constitutions and by federal, state and local law.

Prior to the Internet, the large amount of information that had to be disseminated and gathered by governmental agencies and understood and provided by citizens had produced a marriage of convenience between attorneys and governmental agencies. No agency could afford to have on staff the number of people required to interact with citizens one-on-one. The *raison d´être* of attorneys is that they make it possible for a civilized society to exist. Attorneys avert the use of physical force as the primary dispute resolution mechanism by:

- instructing and advising the private sector (citizens and entities created by citizens) on how to achieve their objectives in a legal manner; and

- acting as intermediaries between disagreeing parties (including government instrumentalities).

The Internet has suddenly changed the dissemination and gathering equation. Citizens can much more easily (and inexpensively) find information needed to understand and comply with legal regulations applicable to their desired activities. Using the same Internet, citizens can provide required information to the governmental agencies. Browsing the few websites (there are tens of thousand available) referenced above demonstrates how government is reaching out to the private sector.[48] Courts are very much a part of this reaching out by governmental agencies. Sites such as the Judicial Council of California's Self-Help Center <www.courtinfo.ca.gov/selfhelp/> have become widespread as the courts seek to do a better job of helping citizens.

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[48] If you are short of time, just browse these three sites and realize they are representative of government's efforts at all levels: FirstGov <http://www.firstgov.gov/>; Chief Information Officers Council "Best Practices" page <http://www.cio.gov/index.cfm?function=documents&section=best%20practices> [links including "*One-Stop Business Compliance Best Practices White Paper*" (May 2, 2002)]; and the California state government's home page <http://www.my.ca.gov/state/portal/myca_homepage.jsp>.

What will be the impact on the profession of the government greatly reducing or eliminating the need for attorney and accountant intermediaries? One logical conclusion is a decrease in demand for legal services. Of course it might also elevate the quality of the opportunities to be intermediaries.

4. Trial Strategies

Trial strategies could be hugely affected by electronic filing, requiring litigants to develop additional criteria for determining what information they will put into the record. Whether there is a huge impact will depend on the outcome of a political controversy and dialogue now underway. That discourse concerns whether, for purposes of public record compliance, there is a significant difference between paper records and electronic records.

Privacy advocates believe there is an enormous difference. Information merchants, including the press, have taken the opposite view. The press asserts that a "public record is a public record" regardless of how it is recorded or stored. *See, e.g.,* "Complaint for Declaratory Relief and Injunctive Relief" ("SJ Merc Complaint") in *San Jose Mercury News, Inc. v. Superior Court*, No. C01-20999 (N.D. Cal. Oct. 22, 2001) (challenging, on First Amendment grounds, Santa Clara Superior Court's "policy . . . prohibiting public and press access to . . . civil case management database and . . . civil case dockets").[49] On the surface, their tautology is attractive. It seems self-evident that they find it surprising that a debate exists. Like so many apparent absolutes, however, close inspection causes the proposition to take on a more relative character.

If the only issue were the record's contents, there would be less of a basis for challenging the axiom that a public record is a public record regardless of how it is stored. It is not the "record" content part but the "public" part that poses the problem. "Public record" goes beyond the information contained in the record and expands the discussion to include access and mode of publication. It is the "access" that messes up the math. Public records are records that are available to the public, meaning everyone. Simultaneous, multiple, remote access was referred to earlier in describing the different character of electronic record systems compared to paper-based record systems. It is the remote access that justifies the conclusion that electronic public records are inherently different from paper public records.

Privacy, freedom of information and the First Amendment have peacefully co-existed for most of the Twentieth Century. When public records become electronic, the

[49] <http://www.fenwick.com/About_Fenwick/Privacy_Law_Resources.htm>, linking to <http://www.fenwick.com/About_Fenwick/Privacy_Documents/SJ_Merc_v_Santa_Clara_Complaint_10-22-01.pdf>

co-existence can take on an adversarial character.[50] Information merchants maintain that requiring a record to be "public" means the broadest form of availability. The press vigorously challenges the authority of the courts to limit access to any court records and proceedings. *See* SJ Merc Complaint. It has been widely accepted that, to pass constitutional muster, any restriction by the court on access to its records and proceedings must be narrowly tailored to serve a substantial government interest. *Barber v. Conradi*, 51 F. Supp. 2d 1257, 1266-67 (N.D. Ala. 1999). Absent privacy or national security concerns, the public should be entitled to remotely access and copy any public record. In the case of electronic records, that probably means remote and, maybe bulk, access.[51]

Our society has long been at work constructing the constitutional balance between the public's right of access to information and the individual's right to privacy. But the balance that has been struck is in a context where the public records are in paper-based systems. While reasonable people can differ, it is unlikely they would disagree with a government agency's or a court's right to reject a request asking for all records in a paper-based record system that make any reference to a particular person or topic.[52] Because of the burden involved, honoring such requests would either drive the costs of the governmental agency or the court to an unaffordable level or paralyze their efforts to conduct the functions for which they were created.

Now consider the same request for all records referring to a particular person or topic where the agency's or court's record system is electronic. Billions of records can be searched in a few seconds without any significant increase in cost. When the records to be search are in electronic records systems, particularly where the request is formed

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[50] *See, e.g.,* Jennifer 8. Lee, "*Dirty Laundry, Online for All to See*" (N.Y. Times Sep. 5, 2002) (discussing backlash faced by James C. Cissell, then Hamilton County, Ohio head clerk of courts, upon posting at <www.courtclerk.org/> publicly available records, including state tax liens, arrest warrants and bond postings) <http://people.csp.edu/tesch/Dirty Laundry, Online for All to See.htm>. When Mr. Cissell -- now a probate judge <http://www.probatect.org/about/resume.htm> -- ran the site, it linked to his article, "*Privacy and Court Records on the Internet; Mutually Exclusive Concepts*," 40 Judges' J. No. 3 (Summer '01) <www.courtclerk.org/images/PCRInternet.pdf>, a higher quality version of which is reprinted in 23 IACREOT NEWS, No. 3, at 7-9 (June 2002) <www.iacreot.com/IACREOT News June 2002 .pdf>.

[51] It appears the courts will be more tolerant of restrictions on bulk transfers. *See Nixon v. Warner Communics., Inc.*, 435 U.S. 589, 601-02 (1978); *United States v. McDougal*, 103 F.3d 651, 658 (8th Cir. 1996) ("as a matter of public policy, . . . courts should avoid becoming the instrumentalities of commercial or other private pursuits"); *Paisley Park Enters. v. Uptown Prods*., 54 F. Supp. 2d 347, 349 (S.D.N.Y. 1999) ("virtually all have an interest in ensuring that everyone in our society have access to a fair and impartial judicial system without having to pay too high a price of admission in the form of the surrender of personal privacy. . . . [C]ourts must be vigilant to ensure that their processes are not used improperly for purposes unrelated to their role"). The authors wish to express their appreciation to Pat Knighten for her unpublished May 17, 2000 Working Paper, "Privacy and Access to Electronic Case Files," prepared for the Court Technology Advisory Committee to the California Judicial Council. That paper includes an excellent analysis of the privacy issues raised by electronic case files.

[52] It seems clear that a court can place some restrictions on access to its public records. *Barber v. Conradi*, 51 F. Supp. 2d 1257, 1266-67 (N.D. Ala. 1999). For other cases upholding restrictions on access, *see, e.g.*, *Westbrook v. Los Angeles,* 27 Cal. App. 4th 157, 32 Cal. Rptr. 2d 382 (1994); *Pantos v. San Francisco*, 151 Cal. App. 3d 258, 265, 198 Cal. Rptr. 489 (1984).

and executed by the seeker of the information, most reasonable people would not agree that such a request is unreasonably burdensome *per se*. Why not? The infrastructure required to provide such searching will likely exist for the agency or court to achieve the efficiencies (or some might say necessities) that motivated the implementation of electronic record systems in the first place.

While motions to seal are reasonably common when evidence is confidential or a trade secret, most lawyers advise, or should advise, their clients that putting information into a court record carries a risk that it will become public. What efiling, with its companion electronic recording system, does is change in an extraordinary way what being "public" means. Being public in records that are "practically obscure"[53] (because of the burden involved in accessing and searching them) is quite different than being public in records as to which a potential or actual competitor or other adversary with an Internet connection can quickly and easily compile a database of information about a party or its business with little effort or expense.

5. Pleading Practice

The most noticeable change in pleading practice will be the use of electronic service. Whether the service is by the court or the parties, it will be nearly instantaneous, and in the case of many pleadings will simply consist of a notice that the pleading is filed with the court and is available for review and/or copying/downloading. As suggested earlier, third party service providers are likely to spring up that will provide various services relating to efiling and service; but it remains to be seen whether such service is a viable long-term business. In any event, a major part of the estimated $11 billion spent for delivering paper documents to the courts[54] and to parties should be eliminated.

One significant time and space saving improvement will be a widespread use of linking to, rather than duplication of, filed documents. Even with the tools currently available, linking is a much more efficient way to provide files related to a matter without duplicating the documents. Linking will also make it easier and faster to drill down or check the accuracy of any reference - whether to a court decision, a filed document or a paragraph in an opposing pleading.[55] Such ease of access should make misquoting a lot more difficult to explain and will hopefully reduce corrective filings.

The efficiency of electronic searching of court files (or the duplicate copy of the court files maintained by a party) should be appreciated by everyone.

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[53] *United States Dep't of Justice v. Reporters Comm. for Freedom of the Press*, 489 U.S. 749, 762, 780 (1989), available at <http://caselaw.lp.findlaw.com/scripts/getcase.pl?court=US&vol=489&invol=749>.

[54] Tom O'Connor, "Efiling: Who's Doing What," *New York Law Journal* (July 2, 2001), at T 7.

[55] Whether the links will be in text form in footnotes or embedded implicitly in highlighted/colored text remains to be seen. Compare the current ECF/CM e-dockets, which embed each hyperlink/URL in a highlighted number corresponding to the sequence in which the pleading was efiled by a party or posted by the court.

6. Trial Presentation

It seems fair to say that the cost, dependability and difficulty of using technology to assist in trial presentations have resulted in limiting the use of technological capabilities that have existed for years. Electronic filing will result in increased use of, and growing comfort with, technology and the instantaneous availability of anything in the court's file. Misrepresentations or distortions, intentional or otherwise, will carry a greater risk because of the ease of access to the original source as well as to other refutation information.

When judges realize the advantages of electronic searching and instant availability, real time (and possibly video) recording of trial proceedings should likewise increase.[56] Expectations of judges and juries concerning the courtroom teaching abilities of attorneys presenting law and evidence are going to be constantly raised as the availability and use of electronic information and presentation spreads to society in general.

These and many other unnoted factors will, without a doubt, heavily impact trial presentation.

7. Malpractice Standards

It is also hard to imagine that malpractice standards won't be raised by the easy availability to attorneys of legally relevant information. What constitutes a reasonable scope of research will undoubtedly encompass a lot more than it did when lawyers needed only "to thumb" the law books. A similar raising of the bar should be expected in the arena of factual investigation, which has already come a long way since the days when it was limited to the review of public library hardcopy sources.

8. Stress (for lawyers increased efficiency means more matters must be handled)

Many attorneys already believe their profession is most stress-laden of all professions. The introduction of competition and its growth in the profession over the last three decades have combined with the development of increasingly efficient communication tools to produce a curious result. Instead of producing more leisure time as a result of increased efficiency, it has increased the number of matters lawyers are expected to handle. Immediate availability is becoming a normal client expectation as a result of email, voicemail, personal digital assistants and cell phones. Some may believe increased client expectations caused by use of efficient tools is a primary factor in the resistance of the profession to adopting the new tools. For sure lawyers' slow

[56] Provided the courts and attorneys can arrive at a compromise with the court reporters and their unexplainably powerful lobbyists.

adoption of more efficient practice tools has decreased the attractiveness of investing in efforts to develop such tools for legal professionals.[57]

One thing is certain; increased efficiency will mean that most lawyers will take on more matters. More matters, if one is true to one's professional obligations, will mean worrying about more client problems, with the concomitant increase in the number of interruptions and deadlines. All these changes undoubtedly translate into more stress.

C. Clients

In some ways clients may be less traumatized than lawyers by the migration from paper-based record systems to electronic record systems. Most clients have more experience with electronic records and are more sophisticated users of electronic information processing. Businesses have been using databases and complex electronic processing since the 1960's. *See, e.g.*, the following examples from the 1964 page in the online *Timeline of Computer History*[58] (Computer History Museum 2003):

> IBM´s SABRE reservation system, set up for American Airlines[,] . . . . linked 2,000 terminals in 65 cities to a pair of IBM 7090 computers, delivering data on any flight in less than three seconds; . . . .
>
> CDC´s 6600 supercomputer['s] design [ ] had 10 small computers, known as peripheral processors, funneling data to a large central processing unit.

Businesses thus have over 30 years of experience with real time systems. To the extent lawyers are using electronic information processing - and only a minority of lawyers are sophisticated users - it has been since the early 1990's.[59] Having more extensive experience does not mean client record-keeping will be immune to significant change. It means clients will have less difficulty adjusting.

1. Client Record Keeping, Organization and Management

The single greatest influence on client record-keeping, organization and management is the required paper reports that have to be prepared and in many cases periodically filed with governmental agencies and sometimes courts. The second greatest influence is the information needed for operating the business in a dynamic competitive global economy. These two factors have caused most businesses to string together information from legacy systems with newly developed web applets to generate the necessary reporting. With the upsurge of efiling, particularly by

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[57] Lexis-Nexis was not profitable during its first 20 years, when millions of dollars were being spent to develop a useful database; nonetheless, a succession of owners continued to spend enormous amounts to make Lexis a viable alternative to West Publishing's Reporters. Some may justifiably say it became a viable business only when it changed it focus to provide much more than court decisions did.

[58] <http://www.computerhistory.org/timeline/timeline.php?timeline_year=1964>

[59] Word processing is more akin to typing than to electronic information processing, and for that reason it shouldn't be considered electronic information processing.

governmental agencies, it seems logical that most, if not all, regular periodic governmental reporting will be automated.[60] Clients' systems will electronically generate the required reports and, after some acclimation period, will likely automatically electronically file the required reports.

Clients and their attorneys are going to have to focus on how, and in what form, copies of the electronic filing and reporting will be preserved.[61] A problem that has not received much public attention is the nature of real time systems. Such systems involve databases that are continually being updated. To the extent that updating changes information in the database at a particular point in time by overwriting older data, how do you determine what the information was before it was changed?[62] What about the obligation to preserve evidence? The companion paper regarding ediscovery, available at <www.fenwick.com/publications/6.4.0.asp> explores the answer to these questions.

2. Increased Self-Service Capacity

In the earlier discussion it was noted that a primary objective of efiling and egovernment is to permit the private sector (citizens and business) to interact directly with the government. Such interaction will provide clients with important self-help abilities. Non-legal employees can be expected to perform functions for which lawyers have been used in the past. If the promise that motivates egovernment is realized, clients will be able to eliminate or significantly reduce what many consider extraordinary costs of legal services.

3. Potential Increased Access by Claimants and Plaintiffs to Governmental agencies and the Courts

"It will open the flood gates" has long been the cry of opponents to new laws or new interpretations of old laws. It is difficult to assess whether clients' increased direct access to governmental agencies (particularly those charged with enforcing the laws and regulations) and courts will result in a larger number of claims being filed against those clients. At a minimum, the increased access to public records, including court decisions and agency actions, will surely enhance citizens' and competitors' sensitivity to their rights, potential claims and remedies. One would certainly think that the opportunity for class action claims would be increased with the eased availability of detailed information about claims that have been filed against a defendant.

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[60] Recently British "[e]mployers face[d] fines of up to £3,000 if they refuse to file their tax returns using the internet, under proposals in the finance bill." P. Inman, "*£3,000 fine if Paye stays offline*," Guardian Unlimited Netnews (May 10, 2002) <www.guardian.co.uk/internetnews/story/0,7369,713090,00.html>.

[61] Although it is far beyond the scope of this paper, it is worth noting that preservation requirements will have to encompass versions of the software and hardware required to get access to previously filed electronic reports. Software, hardware and operating systems are constantly changing, such that, at some point in time, data generated and stored by earlier versions of any of these elements will likely become incompatible with current versions.

[62] The higher the public profile of electronic records and filing, the more likely it becomes that adversaries and government investigators will start demanding discovery of electronic records beyond emails. Ediscovery is the topic of the companion paper that is being presented with this paper on efiling.

4. Transparency of Operations

Since the Enron debacle's revelation, there has been much discussion about the need for greater transparency of business operations. *See, e.g.,* "*The Post-Enron World*," <http://www.businessweek.com/magazine/content/02_05/b3768128.htm>(Bus. Week Online Feb. 4, 2002). Clients continue to make available - either on their own websites or on government websites as a result of electronic filings - more information about their businesses. In that regard, it is thus safe to say that a lot more information is going to be available very inexpensively to competitors and adversaries.

5. Public Relations Management During Litigations and Other Disasters

In the last ten years since the Internet really became available to the public, the wide dispersion of huge volumes of information, good and bad, has accelerated from days and weeks to seconds and minutes.[63] Efiling will add to the volume of information that is almost instantaneously available about adverse developments. It will mean that part of the early planning for any litigation will be a game plan for handling the public relations issues likely to fall out of the anticipated litigation. Most competent counsel is now conscious of the need to think about the public relations aspects of litigation. Counsel and the client will have to move up the priority of public relations and probably employ more public relations professionals.

6. Clients' Discovery Burden

A safe bet is that efiling will increase the amount of information requested in discovery. Easy availability of information about people, businesses,[64] regulatory proceedings and court actions will provide inquiring counsel with more information to inspire their imagination when engaging in all forms of discovery. Imagine how

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[63] The scope of the Internet is ostensibly expanding by more than a billion pages a year. *See* Cyveillance's Press Resource Center's Quick Stats ("Internet [i]ncludes . . . over 6 billion pages") <http://www.cyveillance.com/web/newsroom/stats.htm>; Cyveillance, "*Internet Exceeds 2 Billion Pages; Cyveillance Study Projects Internet Will Double in Size by Early 2001*," Press Release (July 10, 2000). *See also* Robert Hobbes' Zakon, "*Hobbes' Internet Timeline v5.6*" (July 23, 2003) <http://www.zakon.org/robert/internet/timeline/>. *Cf.* Shailendra C. Palvia, "*The Exploding Internet and the Challenges of Using Internet as an Infrastructure for A Global Electronic MarketPlace*" (1997) <http://hsb.baylor.edu/ramsower/ais.ac.97/papers/palvia.htm>, stating in pertinent part that:

> When Adam Smith described the concept of markets in the Wealth of Nations some two and a quarter centuries back in 1776, he theorized that, "if every buyer knew every seller's price, and if every seller knew what every buyer is willing to pay, everyone in the market would be able to make fully informed decisions and society's resources would be distributed efficiently." [The] Internet with its WWW of networks and computers and databases, and friendly graphical user interfaces like Netscape Navigator and Internet Explorer, comes close to this ideal of instantaneous access to most current information by all at all times.

[64] You may be surprised if you run a search on your name or the name of your business in Google, Lexis-Nexis or one of the many people locator sites available on the Internet. For a number of years there have been searchable databases that provide information about businesses, but only a few lawyers have regularly used them.

advantageous it might be to determine, well before the commencement of a deposition, if and how the deponent has previously testified in any other court or government proceeding. The research that is currently done regarding experts and their background will likely be done for almost any deponent. Through information voluntarily made available on private websites, it is already possible to easily amass information about almost any person, business or product. Efiling will greatly increase the amount of information available, and that will increase the information opponents will likely seek.

Not to be forgotten is the importance of burdensomeness in supporting a motion for a protective order. As more information becomes available electronically, there will be a concomitant difficulty in convincing a court to reduce the scope of production/discovery.

A more complete discussion of the impact of our high-tech era of efiling on discovery is contained in the companion paper on ediscovery, the latest version of which is linked off of <http://www.fenwick.com/publications/6.4.0.asp>.

D. Citizens

1. Overview

On balance citizens should be markedly advantaged with the widespread adoption of efiling. Citizen access to governmental agencies and judiciary will be broadened, and invoking the processes of the agencies and the courts will be made much easier and less expensive for most individuals. Interaction by private citizens with governmental agencies and the judiciary will be much more convenient and less time-consuming. On-line payment of traffic tickets, filing of small claim actions, obtaining permits (or certificates or licenses) and other interactions that now cause the loss of a half-day to a day of work are being transitioned to on-line.[65] Consequently, citizens can avoid personal appearances, time-wasting queues or other inconveniences.

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[65] As to traffic tickets, *see, e.g.,* Judicial Council of Cal., "*Need to Pay Traffic Tickets? Help is Just a Click Away*" (Release Aug. 13, 2002) <http://www.courtinfo.ca.gov/presscenter/newsreleases/NR61-02.HTM>:

> Millions of . . . drivers who get traffic citations will be able to pay their tickets online [at the] *My California* site, thanks to a joint effort by the Judicial Council . . . and the state's Executive Branch. (http://www.ca.gov/state/portal/myca_county_courts2.jsp) Starting today, the *My California* site will provide links to the five state superior courts that offer online traffic citation programs. The information will promote the courts' efforts to process traffic cases more efficien[tl]y and modernize court operations, a priority of the Judicial Council . . . .

As to small claims cases, s*ee* the Sacramento County Superior Court's on-line Small Claims Court site, available at <http://www.apps-saccourt.com/scc/>, also one of the many efiling programs linked off of the NCSC table, available at <http://www.ncsc.dni.us/NCSC/TIS/TIS99/ELECTR99/Efilinglinks.htm> reproduced in *Section II(B)(2) above*. As to permits and licenses being obtained on-line, s*ee, e.g.,* City of L.A. Dep't of Building & Safety, "LADBS e-Permit System;" <https://www.permitla.org/> Georgia Dep't of Natural Resources, Wildlife Resources, "Permits & Licenses" page (site at which state residents can obtain hunting and fishing licenses and can register boats). <www.dnr.state.ga.us/dnr/permits.html>

Administration of the jury system can be expected to become more efficient and less burdensome for citizens.

Another important benefit will be the ability to deal directly with many situations that now require a lawyer intermediary. Interaction with a number of social service agencies will be simplified. There is a price that may have to be paid in the form of greater risks to privacy, but many citizens are demonstrating a greater willingness to take the additional risk.

2. Privacy

As more information is accumulated in the electronic exchanges with governmental agencies and the judiciary, there is a greater opportunity for loss of privacy. Most of the actual losses of privacy to date have occurred inadvertently, principally because of failures to think through the implications of making certain information available or because hacking was facilitated by lax security measures. Electronic filing in courts poses a different kind of risk. The loss of practical obscurity for public court records is real, and not all of the actions required to prevent it have been adopted or implemented.

The United States Supreme Court in *United States Dep't of Justice v. Reporters Comm. for Freedom of the Press*, 489 US 749, 764 (1989) ("DOJ v. RCFP"), <http://laws.findlaw.com/us/489/749.html> recognized that the effort required to gather information about individuals from court paper-based record systems meant "practical obscurity" for such records. The Court found that there is a "vast difference between the public records that might be found after a diligent search of courthouse files, county archives, and local police stations throughout the country and a computerized summary located in a single clearinghouse of information." *Id.* The practical obscurity of such records protects third parties and litigants from being injured by the misuse of information disclosed in court proceedings. On the basis of that difference, the Court upheld some restrictions on the access to a database containing summaries of information contained in criminal "Rap Sheets."

It is not an exaggeration to say that a substantial amount of the protection provided for information contained in public court records is provided by the "vast difference" referred to by the Supreme Court.

Already many feel that the press too often uses its invasive approach to obtaining and publishing what many consider to be private information to boost circulation and viewer reach rather than the intended purpose of freedom of press contained in the First Amendment. The Supreme Court in *DOJ v. RCFP* defined the public interest in court records being public as "shedding light on the conduct of any Government agency or official," rather than acquiring information about particular private citizens. *Id. at 773.* The Court also held that "the fact that an event that is not wholly private does not mean that an individual has no interest in limiting disclosure or dissemination of the information." *Id. at 770.*

The risk of invasion is obvious once one is made aware of the "vast difference" in availability of records contained in a paper-based record system and those contained in an electronic record system. Still it would be unwise to believe that knowledge of the problem will mother the solution. Information merchants have a powerful vested economic interest in keeping to a minimum the restrictions that are imposed on court electronic record systems.

One executive in the technology industry has been quoted as saying, "The privacy you're concerned about is largely an illusion. All you have to give up is your illusions, not any of your privacy. Right now, you can go onto the Internet and get a credit report about your neighbor and find out where your neighbor works and how much they earn."[66]

Many privacy advocates are unwilling to accept such a fait accompli and are vigilant to point out real and potential incursions on privacy. *See, e.g.,* Electronic Privacy Information Center (EPIC), <http://www.epic.org/>; Center for Democracy & Technology (CDT), <http://www.cdt.org/>. *See generally* the many privacy advocacy websites linked off of authors' firm's "Privacy Law Resources" page, available at <http://www.fenwick.com/About_Fenwick/Privacy_Law_Resources.htm>. The political dialogue required to reach a compromise and thus create an appropriate balance is unlikely to take less than a decade of litigation and political action.

E. Government

Efiling could very well enable the government to efficiently serve the public in ways that government has constantly promised to do so but has fallen short. If all the turf wars and bureaucratic inertia don't result in gerrymandering the government's enterprise solution to the issue of information transfer, there are remarkable advantages to be had for government and citizens. At the same time that it achieves these remarkable advantages, efiling can facilitate the destruction of individual privacy. In any event, when the public becomes aware of efilings' potentials, it will have a sizeable impact on the public's expectations of government.

There are at least three risks the government faces as it moves forward with efiling: (1) disappointing public expectations on increased service and decreased cost, (2) adverse impacts on individual privacy; and (3) loss of flexibility and sensitivity in dealing with citizens.

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[66] This statement is widely attributed to Larry Ellison, CEO of Oracle. *See, e.g.*, Jane Black, "*Don't Make Privacy the Next Victim of Terror*," Business Week Online (Oct. 4, 2001) (reporting that, on the heels of the events of September 11, Ellison offered to donate software that would enable the creation of a national ID system). <http://www.businessweek.com/bwdaily/dnflash/oct2001/nf2001104_7412.htm>

The government faces raised expectations of more efficient service by the citizenry as a result of the promises of egovernment and the public's general acclimation to on-line transactions. OMB Experts in the Office of Management and Budget[67] are not the only ones who can see the enormous potential egovernment has for reducing the burden on private citizens and businesses.[68] Many citizens above the age of forty realize they have provided a variety of governmental agencies with the same information dozens of times by filling out forms for the purpose of interacting with the government.

Increased efforts will be expected of the government to protect the privacy of citizens. It is not rational to believe that government has a diabolical intent to destroy privacy. It is much more likely that any destruction will be the result of inadvertence. It remains to be seen whether the government is willing to bear the costs that will be necessary to construct an infrastructure that will take advantage of the potential and still provide the protection that has been achieved through "practical obscurity."

It has long been thought that a large single system serving an entire enterprise leads to centralization of authority and decreased flexibility.[69] A tendency toward centralization will likely flow from the successful implementation of egovernment.[70] Whether that is good or bad will have to wait a few years of experience when there has been a broader adoption. It should not be assumed that centralization of government always produces either a negative impact on flexibility or insensitivity to citizens' needs. It will depend on how that centralization manifests itself.

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[67] "We live in an increasingly interconnected society, where the Internet has spawned tremendous improvements in efficiency and customer service. People use the telephone and the Internet to get service 24 hours a day, seven days a week. More than 60 percent of all Internet users interact with government websites. Egovernment will save taxpayers a significant amount of money, while adding value to citizens' experience with government and better serving their needs." OMB Report, at 1, PDF p. 4. <www.whitehouse.gov/omb/inforeg/egovstrategy.pdf>

[68] A recent report concluded that "[w]hile many government site users focus on their personal needs in dealing with governmental agencies, there is abundant evidence that a new "e-citizenship" is taking hold: 42 million Americans have used government Web sites to research public policy issues[;] 23 million Americans have used the Internet to send comments to public officials about policy choices[;] 14 million have used government Web sites to gather information to help them decide how to cast their votes[; and] 13 million have participated in online lobbying campaigns." Pew Internet & American Life Project, "The rise of the e-citizen" (Apr. 3, 2002), at 2. <www.pewinternet.org/reports/pdfs/PIP_Govt_Website_Rpt.pdf>

[69] "*See, e.g.,* Eric Berkman, "*IT Organizational Models: Next Stop Centralization; It was in, it was out, and now it's back and better than before. Is it time for your company to get on board?* " <http://www.cio.com/archive/091501/centralization.html> (CIO Magazine Sept. 15, 2001).

[70] *See, e.g.,* Eagleton Institute of Politics' Electronic Government Project's "*eGov Administration,*" available at <http://www.eagleton.rutgers.edu/e-gov/e-ideas.htm>.

V. CONCLUSION

Efiling is not about simply making it possible to transmit information electronically. It is about a change in the basic infrastructure used by citizens and the government to deal with one another. If the government continues enthusiastic adoption of electronic information technology, radical changes are going to occur. Since the creation of courts and administrative agencies, many political candidates have campaigned and won elections by promising massive changes in the way the government services the people.[71] Most of those same politicians have failed because of the strength of these governmental institutions and their resistance to any effort to change them.[72] Turf wars between branches of government and among agencies have hampered even the most obviously needed effort to coordinate the actions of the myriad of local, state and federal bodies—all created to meet the same perceived need. Maybe the potential of efiling will serve as the missing catalyst for such coordination. Maybe efiling will inflict the most powerful blow yet against the desire of many to stop government intrusion into the life of citizens. Will efiling be the catalyst, the intruder or both? It's too soon to tell.

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[71] For some of the pertinent comments made in the last two Presidential election years, *see, e.g.:*

- On The Issues, "*George W. Bush on Government Reform*" (Nov. 1, 2000) ("My concern about the role of the federal government is that an intrusive government, a government that says, 'Don't worry, we will solve your problems' is a government that tends to crowd compassion out of the marketplace"). <http://issues2002.org/Celeb/George_W__Bush_Government_Reform.htm>
- On The Issues, "*Bill Clinton on Government Reform* (Jan. 1, 1996) ("[S]ince the Reagan Revolution of 1980, the dominant Republican argument has shifted from 'less government is almost always better than more of it' to 'government is always the problem.' Our administration and the new Democratic party take a different view. We say the era of big government is over, but we must not go back to an era of 'every man for himself.'"). <http://issues2002.org/Celeb/Bill_Clinton_Government_Reform.htm>

[72] *See, e.g.,* On the Issues, "*Ronald Reagan on Government Reform*" <http://issues2002.org/Celeb/Ronald_Reagan_Government_Reform.htm> (2002) ("Deregulation became a watchword of the Reagan administration, but critics charged that reduced regulation created hazards to public health and safety. During his first term, the president sought to shift dozens of federal programs to the state and local levels under his system of 'new federalism.' Officials in these jurisdictions complained that promised federal aid to implement the programs was inadequate.") (citing Grolier Encyclopedia on-line, "*The American Presidency*" (Dec. 25, 2000), <http://gi.grolier.com/presidents/ea/bios/40preag.html>).