Finding the Way to Electronic Court Records

King County is following a three-step strategy on the road to electronic court records

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The Electronic Court Records (ECR) program in King County (Seattle), Washington, is a very large, advanced, multi-phased effort to eliminate paper and institute electronic filing for all cases before the Superior Court. The Superior Court Clerk, also known as the Department of Judicial Administration (DJA), is the agency whose responsibility includes managing all of the Court's case records. By law, those records must be retained indefinitely. The directors and managers of DJA have been responsible for the planning and implementation of all phases of ECR.

King County, with more than 1.5 million people, is the 12th most populous county in the nation. The King County Superior Court, a court of general jurisdiction, is the largest court in the Pacific Northwest. It handles 27% of the Superior Court cases filed in the State, with about 75,000 new cases each year[1]. The Court and the Clerk's Office operate at three separate sites: the main Courthouse is in downtown Seattle, the Regional Justice Center (RJC) is located 20 miles south in Kent, and most juvenile matters are handled at the Juvenile Justice Center on Seattle's First Hill.

DJA's leaders defined the phases of the ECR program in a Master Plan written in April of 1998[2]. In November of 1997, DJA had begun scanning files for cases that had been archived, i.e., which were inactive for prescribed periods ranging from 18 months to 2 years. Accordingly, the name "Phase I" of ECR was given to "Core ECR," which was to bring imaging of active court case files, with workflow for document processing within DJA by late 1999. That project is now done. Imaging is in place for documents for all cases filed on or since January 3, 2000. Including both active and archived cases, over 50,000 pages per day are now being scanned. Over 12 million pages of images are on file, 10 million of which were converted from a different imaging system DJA used for the archived cases from 1997 to 1999.

The final phases of ECR will extend image connectivity within the County and, ultimately, will bring the online case file and electronic filing to the community. "Phase II" brings images to the courtrooms, Judges' chambers, courtroom clerks, and case file users, all within the County's wide area network (WAN). This "connectivity" phase will be complete before 2000 ends. "Phase III" will extend connectivity to file users over the Internet and, most significantly, will introduce electronic filing, a substantial change for the King County Superior Court and, by example, the State. Remote access to the case files over the Internet, along with electronic filing, will constitute "the online case file."

Both authors have long-time involvement in the ECR program. Winters, who became the Department of Judicial Administration's (DJA) manager for file maintenance, access, and research in 1988, has been ECR Program Manager since 1997. Cary was DJA's consultant in 1996 and 1997. He did research on what others were doing, studied options for electronic financial transactions, and helped develop the ECR approach DJA used.

Well before 1988, Jan Michels, then the Superior Court Clerk[3], knew that ever-increasing paper filings with limited space and staff meant only technology could do the job better. Winters looked closely into imaging, the only technology then that might save space and staff by automating filing and retrieval. He started planning to use electronic storage to meet the practical challenges of a growing paper load.

In 1994, an important breakthrough occurred. Michels and other clerks and court administrators heard, at a court technology conference, the idea of using mark-up language and digital signatures to make self-indexing electronic documents. As filings, they could have key data in them located by software using standard data codes. Digital documents could be intelligently indexed and processed by automation. Several inspired court leaders from all parts of the State, meeting through that winter, articulated a vision of a "seamless Web" of related systems sharing data, allowing for the first time interoperation of Courts with other agencies in the justice process. A centerpiece for this would be the electronic court record. The technology used to automate indexing and speed retrieval for court case files would be exactly what would be needed to achieve integration, whether in law, safety, and justice alone or across all related agencies of government. Courts, they believed, were in the best position to experiment and invent the data-aware electronic, self-indexing document of the future.

In 1995, a DJA proposal was one of several requested new information systems that led the County to issue a bond to fund new technology. In the law, safety, and justice area, DJA's "ECR Project" got top priority. This led to a series of discrete projects to build electronic imaging, access, filing, and automated data processing. As conceived by DJA, each ECR project would have a limited scope. Each project would realize part of the overall goal, but could be justified in terms of its own benefits. A single jump to a fully electronic filing system could not be done.[4]

A number of barriers had to be overcome, including:
- a relatively recent introduction of desktop technology into the Court and Clerk's office,
- a lack of standards to define data elements and build internally consistent legal documents,
- a lack of technological readiness among most law firms and sole practitioners and,
- a general uncertainty about the still-developing infrastructure within which successful systems would have to be built.

Other serious issues that would have to be tackled on the way to the online court file, included:

- reviewing and revising statutes and court rules,
- assessing the privacy consequences of online files, and
- addressing how different it is to work with electronic, rather than paper files and documents.

Building the Document Imaging Core
The idea behind archive scanning, begun in 1997, was to save retired case documents as images rather than microfilm. DJA had a fortuitous opportunity to begin scanning and suspend its usual microfilming. DJA started a scanning program before long-term storage issues were settled. DJA sought bids from imaging vendors willing to rent their software [5] and committed available technology funds (less than $200,000) to purchasing the needed servers and scanners[6] to complete what Winters called "a basic vanilla imaging system." Intent on moving the archive case images into the system it would later create as "Core ECR;" DJA required that the images be easy to transfer. The County provided an IBM RS/6000 computer; so DJA had only to purchase enough 9GB disks for storage. Using this relative of "Big Blue," the IBM chess-playing wonder computer, DJA attained retrieval speeds of two to four seconds within the County's fiber optic network at both Seattle and Kent sites. With this initial project, DJA proved magnetic disks could serve as a medium for storing large numbers of images, and that large numbers of images could be moved across the DJA LAN and County WAN every day.

The role of electronic records relative to retention of court case records became clear within a fairly short time. Based on recommendations from the State's county clerks, two options for long-term (permanent) storage of electronic records in the courts were defined in a revised statute in 1999. Under the law on destruction of court records, options included 1) courts could plan to create traditional microfilm reels of images output from the computer (COM, computer output to microfilm) or, 2) they can commit to move their images and data forward as systems are updated.

DJA recognized that COM could produce familiar microfilm, such as DJA had made for archived cases for years before. However, ongoing retention and migration of imaged and electronic data also had its appeal. Someone is always searching the records of the Superior Court, since they are retained "indefinitely." Case files of all eras and types attract the attention, if not of the Court, of land title, genealogical, and other researchers and individuals who have all sorts of reasons to peruse old case files.

An electronic case file repository that is used just about every day is a good candidate for new approaches to long-term storage. However, the specifics of a program of image, index, and data migration remain relatively undefined. Work to clarify the practical meaning of this approach will have to involve not just DJA, but other county clerks, the Administrator for the Courts, and the State Archivist.

A difficult, but valuable process, archive case scanning gave DJA experience with imaging on a large scale. DJA staff learned the complex interrelations among scanners, cards, software, and vendors. They figured out how to prepare papers for scanning. Staff mastered the care and feeding of temperamental scanners and servers. They learned the truths about imaging that aren't usually mentioned in vendor ads about imaging.

Vendors point to their "seamless, integrated document solution," the superior "document management system" they offer, resulting in the "automatic processing of your documents and information." They praise the extraordinary power of their "workflow management," and promise a "total e-document system." Images of exuberant or relaxed or relieved executives, contented staff, and imposing technology grace their trade magazine and Web site ads.

What is not revealed is the enormous work an organization must itself do. Before imaging, business experts must micro-analyze and define their documents and work processes in detail. To implement imaging, much new knowledge must be identified and mastered, including:

- routes of the organization's paper documents, old and new,
- the trials and techniques to discover how to prepare documents for scanning,
- experience with the machines with which the organization will have to work,
- the tricks to get documents through scanners without problems like skipping,
- figuring out daily scanner cleaning and other maintenance,
- inventing quality control procedures to ensure that every paper has a good image, and
- staffing the new work to index documents into the organization's existing system as well as into the imaging system.

Defining and staffing administrative tasks for technical management of a system's servers, backups, and software, and to determining and enforcing security and privileges for the entire workforce and user community, is new work. When workflow is a component (as it should be), an organization has to build and administer a new system to supervise production staff, discovering what it takes to make sure important work doesn't get lost, wrongly assigned, or neglected. Imaging and workflow are important, valuable new technologies, but they require far more from an organization than just the cost of new technology and the vendor's "solution." User licensing can be a very confusing, expensive item, not always clearly presented up front.

DJA's procurement for "Core ECR" – imaging and workflow within the Clerk's Office – took most of 1998. A request for qualifications (RFQ) limited bids to vendors with a track record with large, complex projects; this also limited the number of proposals for the review team to read. The RFP (request for proposals) was issued after qualified bidders went through a detailed orientation to DJA and its work. From the serious contenders, DJA chose Sierra Systems Group, Inc.,[7] integrators who proposed a FileNET solution they would customize to meet DJA's specific requirements. A contract was concluded in November 1998.[8] A yearlong development with close vendor-user collaboration paid off. It took lots of time and covered lots of detail.

A massive image conversion moved 10 million images from the archive scanning effort into Core ECR. The process was completed over a period of three months in 1999. A Sierra technician unloaded about 200,000 images at a time, exporting them to TIFF files on the RS/6000 Unix system. Using FileNET's File Import software, images were zipped and transferred by FTP to the NT system of Core ECR. The technician wrote a Visual Basic application to drive the conversion. SQL Server tables kept track of the process. This application allowed Sierra to track disk space used and the rate of transfer. As the importing was done, the images were recorded onto the optical disks in the Hewlett-Packard jukebox of Core ECR.

How Core ECR Works: Procedures
Documents in cases opened in 2000 at the three separate sites are now being scanned and indexed at the document level within their respective case files.[9] The DJA sites are linked to each other through the department's own ethernet LAN. They, along with the Court and other departments of the County government, are linked through the County WAN over a robust, fiber-optic ATM network administered by the County's Information and Technology Systems division. Scanning occurs at all three DJA offices, using Fujitsu 3097 scanners. Archival scanning continues at the RJC in Kent with a separate, term-limited staff group, now using the FileNET software, storing case files in the main ECR jukebox.

Prior to scanning active cases, the documents are sorted, so pre-2000 cases can be processed as paper. Archive cases come in groups based on SCOMIS, the State mainframe that constitutes the official case index and data system .[10] identifying inactive cases when DJA is ready for them. Staff trained in the art of document preparation carefully remove staples, tab dividers, and the like. Since duplexing scanners were rejected as one more thing to break down during production, they copy the back-side of any two-sided document before scanning.[11] They "rehabilitate" poor hard copy pages by taping torn corners and rips, photocopying faint pages on a "darker" setting, and otherwise. They check to make sure signatures are present as required. They insert separator pages between documents, on which a patch code (a very simplified bar code) tells the scanning software where one document ends and the next begins.[12]

Document prep creates batches ready for scanning. Staff batch similar documents together to facilitate processing downstream. Sierra's custom program lets DJA enter the SCOMIS code, an alphanumeric identifier of document type, for a batch of documents that share it, avoiding data entry later of this code later on. Documents that need only "general docketing" (entering filed date, sub [13] number, code, and document title) are batched together. Batches are usually limited to 300 pages for ease of handling, though FileNET can work with a document that has up to 999 pages. When a single document has more than 300 pages, a "bulky sub" in DJA lingo, it is scanned in segments. FileNET tracks these as document parts until told it is scanning the last segment. A court file can have individual documents thousands of pages long!

Scanning staff work with one batch at a time. They manually feed each page into the scanner, even though the scanner has an "automatic document feeder." Due to the variability of the hard copy paper's thickness and quality, the feeder almost always will jam or miss pages if left unattended. After successfully scanning a batch, staff place assigned batch numbers on the batch control sheet.

The ECR indexer compares batches of scanned hard copy with the displayed captured images. DJA uses a quality checking procedure developed in its archival scanning experience. The indexer associates each document with its case number by manually entering the number in Core ECR. After doing so, the indexer assigns the sub number, using the number provided by Core ECR or assigning a different number when appropriate. Finally, the indexer assigns the document to a general docketing workflow batch or to one of the pre-defined DJA image workflows. This places an imaged document into its proper workflow queue, from which clerks withdraw work items. At this point the document's images are committed to the jukebox and become available for viewing.

Indexed hard copy documents are held for 24 hours, until the overnight backup is done. Documents are then sent for reassembly. Staff put documents together, re-staple them, remove separator pages, and forward them to the file maintenance section. This section sorts the hard copy documents and places them in file folders in the shelving systems at all three sites. Until connectivity is completed later this year, and for a while thereafter, DJA provides the hard copy file folders to the Court and other users, not the images.

The Sierra software integrates Core ECR processing with SCOMIS. Sierra's workflow lets clerks work from images while they "docket." Docketing is data entering information about each paper into SCOMIS [14]. The e-mail-based workflow initially proposed had to be replaced because the e-mail could not allow more than one worker to draw work from the same box.

Documents requiring only "general docketing" are assigned to a work queue from which any docketing clerk may take work items. However, 40% of the case documents require additional data entry. This work ranges from setting up a newly opened case to entering information about a judgment, to reading and carrying out a court order. Individual workflow queues are essentially an electronic substitute for moving stacks of documents from desk to desk. Staff may take work from these queues only if they are qualified to perform the work. "Alerts" are used to indicate the progress of documents through DJA processing. A "P" indicating "in process" disappears when the final workflow step for the document has been marked completed.

Using screen-scraping and other techniques, Sierra's system ensured that data remains synchronized between SCOMIS and ECR. DJA's internal business committee directed that SCOMIS is the official case index record. Accordingly, Sierra's interactive system, which alternately pushes and pulls data, in the final step updates only one-way, from SCOMIS to ECR.

How Core ECR Works: The Technology
Core ECR is a customized FileNET Panagon system. It uses a FileNET Capture 2.0.2 for scanning, image verification, and indexing. The FileNET IDMIS handles image storage to optical disk and retrieval of the images for viewing.

The main server is a Compaq Proliant 5500R with 4 PII Xeon 400 MHz processors. Disk storage is used to cache images; the disk cache includes 22 9.1GB SCSI hot swap disk drives using RAID technology. Nightly backups are done using a 15 tape DLT Tape library with 2 35/70GB drives. The optical storage hardware is a Hewlett-Packard SureStore 1200ex Optical Jukeboxwith 10 drives and 238 slots. The images are recorded on two drives simultaneously, one for online retrieval and the other as a backup disk (tranlog). The tranlogs are removed off-site as a backup.

The second server is also a Compaq Proliant 5500R, with 2 PII Xeon 400 MHz processors and 8 - 9.1GB SCSI hot swap disk drives using RAID technology. This machine is used for middle tier processing; specifically, Microsoft Transaction Server (MTS) and Microsoft Internet Information Server (IIS). This machine has two functions: 1) to perform business rule processing for both thick and thin client machines (MTS) and 2) to serve ECR Web pages to the thin clients (machines using Internet Explorer).

Core ECR, including the archival scanning work, has 10 Scanning Workstations (Compaq Deskpro PII 350MHz processors with 128 MB RAM. Scanners are Fujitsu 3907DG's with Kofax 9275 scanning cards; two stations use faster Fujitsu 3099 scanners. Sierra Systems Group customized the interface between the FileNET system and the DJA user with an application created in Visual Basic (VB). Most business components run on the MTS server and make extensive use of SQL Server stored procedures. FileNET IDMIS caches images to the magnetic disks for viewing; the images remain in cache until replaced by newer images.

Once images are scanned, they are cached until the ECR Indexer completes review of the document images against the hard copy source, links the document to its case number, assigns the document its sub number in its case file, and assigns the imaged document to a workflow. On pressing an "index" button, the indexer commits the images to the jukebox. Documents are immediately viewable, even though they have not yet been "docketed" into SCOMIS. (Viewing any "sealed" record requires that a user have a DJA-assigned role granting permission.) Newly indexed documents appear in the Case Contents screen, showing date and Sub Number, but no document title. Users would select them when looking for the most recently filed items. Images may be subject to deletion by staff during processing or based on future court orders.[15]

The nightly backup must be completed before indexed documents are released to be placed into their respective paper files.

The ECR Connectivity Project
Many courts that have instituted imaging have maintained the papers because of legal requirements or uncertainty about the validity or reliability of electronic records. DJA, in contrast, considers the images, not the hard copy case files, to be the official court record. For example, when preparing a certified or exemplified copy of a document from an imaged case, DJA staff will print the copy from the Core ECR system, even if the hard copy case file is also available. Hard copy files are kept only for reference by the Court and other file users until the next phase, "ECR Connectivity," is complete.

Presently, without additional staff resources, DJA maintains dual systems, with electronic images and hard copy in paper folders. DJA is under considerable strain to maintain processing standards. The prospect of eliminating hard copy for imaged cases by sometime between the end of 2000 and the 2nd quarter of 2001 gives DJA a light at the end of the tunnel[16]. (In its archive scanning, DJA has destroyed hard copy, using the same procedures it previously used when transferring case files to images on microfilm reels.)

DJA in "Phase II" is preparing to bring images into courtrooms, judges' chambers, public reading areas in DJA, and desktops within the County's law, safety, and justice departments (sheriff, jail, prosecutor, defenders, juvenile agencies, and district court). A user-friendly Web-based image viewer, now in development, will be the way the Court and others in the County's WAN will view the imaged documents.

The connectivity viewer requires Internet Explorer 4.0 or above initially, though it will support all popular browsers when complete. It will be deployed in August through October 2000. Users will need, at minimum, a Pentium 133 with 32 MB of RAM, with 64MB recommended. "Heads-down" image users will need Pentium II or III PCs with 19" or 20" monitors. The Court has chosen a 15" flat panel monitor as its standard for use at the Bench. DJA will use these monitors with new PCs. Judges will also have connectivity through the PCs in chambers. DJA's Courtroom Clerks will have new PCs so they can view case files from the lower bench. Over $850,000 was provided by the County for Connectivity; this covers FileNET user licenses and technology items needed by file users in the Court and various departments.

ECR Connectivity will provide Web-based image viewing for the public, in the public reading areas of DJA's offices. Many PCs will be provided for this purpose beginning in the fall. DJA staff will assist technologically inexperienced customers in locating the documents they need. A print job queuing program will provide for printing of simple and certified copies for public users upon payment of applicable fees. A password entered by staff will permit an individual to see only the sealed document or case to which they have been granted access.

In a year or so, Web access to imaged court records from outside the County's network will be ready. Serious concerns about security and privacy will have to be resolved first. "Phase III" will be the culmination of ECR's vision, but it will take time to bring it into being. At present, it is in the planning and project definition stage.

The Project Philosophy
The basic idea for ECR in King County has been that the ultimate goal is electronic filing, not just imaging. Electronic filing includes online receipt of intelligent self-indexing documents.

A key question DJA had to face was whether to skip the imaging phase and go directly to electronic filing. As a consultant, Cary studied the status of electronic filing in courts across the country. He found that some had gone directly to electronic filing. This usually could be done only with special, large cases in which all parties agreed to participate electronically. Most court cases could not be conducted that way. The result was to build islands of high technology surrounded by seas of paper. Since that was not King County's desired outcome, imaging could not be skipped. With imaging, all paper documents would be made electronic. After that, electronic filing could gradually be introduced as a later phase. Nothing prevents the electronic case file from holding a mixture of XML-based documents and TIFF document images within the same folders.

Implicit in ECR is the concept that the electronic record is the official court record. Although a document may have begun life as a paper document, or as a word processed document in an attorney's office, when it is filed with the Clerk the hard copy now is considered a "source document" from which the official, electronic record is made. Paper copies, made by printing at any time, are merely convenience copies. Understood this way, paper is just another device, a flat, non-refreshing "screen," on which electronic documents are displayed in human-readable form.

From the beginning, King County realized that going from paper to electronic filing would involve a much higher degree of interconnectedness than had previously been necessary or possible. Interconnectedness requires

standards. Standards must be at many levels: court, county, state, and nationally. Interconnectedness would be needed not only for the court and clerk, but also for litigants large and small, from major law firms to sole practitioners to pro se (self-represented) litigants.

Very early in its planning process, DJA helped the County form an electronic records task force to search for standards for electronic documents. They employed a consultant to survey applicable standards and best practices. That few such standards were identifiable in the mid-'90s was not too surprising, but the question had to be asked.

As DJA and the Court plan now for eXtensible Markup Language (XML)-based applications, they know it is not enough to have intelligent XML documents with tagged docketing (index) terms. There will have to be standardized metadata [17] structures (schema) to organize and govern the index terms properly. This is why involvement in an effort to develop standards for legal documents is important now. Courts do not want to repeat the experience of electronic data interchange (EDI) where it took 30 years to arrive at a national standard.

Learned Lessons [18]
A key lesson for King County was that a compelling vision about electronic filing and data automation is not sufficient to make it happen. Sharing that vision with a broad-based stakeholder advisory committee was a significant step. DJA knew its business well, but that too was not enough. It was necessary to add expertise in technology project management. To do this, the Court and DJA created a shared staff position into which it placed an experienced technology project manager. DJA used the position to manage the Core ECR project through its implementation. This brought invaluable project management experience to the ECR effort. Roger Winters is managing Phase II, the connectivity project. A term-limited project manager position is being developed to manage Phase III.

The hardest thing about ECR is probably going to be changing the legal enterprise culture. People are emotionally tied to paper-thinking, not just paper. Some resistance has been expressed against going from paper to images. The resistance is from potential users, including some judicial officers and some court staff. Some worry about the stability and reliability of new technology. Others are concerned that their own limited experience with computers will seriously impair their ability to work with documents accessed by PC. Still others are people who are cautiously conservative in the face of procedural or system change.

All kinds of resistance have to be answered with help, encouragement, training, and support. The resisting people are customers, not enemies, of imaging. They must be heard, understood, and worked with, for it is vital to find what it takes to make ECR work for them. If it is unavoidable to move our systems to electronic records, the work to prepare the users of the records is equally unavoidable.

Imaging is really electronic hard copy; it is only one step toward the new culture that electronic documents will open. As ECR moves forward toward fully electronic legal documents, more intense resistance to culture change may surface, requiring significant resources beyond the costs of technology alone.

Getting to Electronic-Filing
Electronic filing as envisioned in 1994 meant a filer could prepare a document with codes hidden in it that point at the pieces of data needed by the Clerk for the index of court case records [19]. Other data systems can be involved, with their own data "tags" added to serve their purposes (for example, law firms could add their own tags to track client information, versions, staff time, and more). Data extraction by software and automated transfer of data to the correct fields in target systems will save countless hours of sometime erroneous data entry re-keyed by human fingers.

Substituting smarter "searchable," "clickable" documents for large, paper-like images will speed up retrieval of information. Legal documents will need to be structured to facilitate basic filing and data entry tasks. Locating and processing metadata by software will leave human fingers and brains free to do more value-adding work.

DJA knew standards would be needed but didn't know how this would come about. Fortunately, in the fall of 1999, principals in separate court electronic filing efforts came together in Albuquerque[20]. Among the 60 participants there were representatives of courts from all types of jurisdictions and all parts of the country. In just a few months, version 1.0 of a proposed Court Filing XML Standard was published for comment [21]. With membership now over 400, Legal XML has become an international forum for work on building XML standards for all types of legal documents: court filings, transcripts, contracts, statutes, and more.

For King County, Legal XML may be just the right thing happening at the right time. The daunting tasks to define all the data elements in court filings are being shared by many motivated peers. Both court process and XML expertise are involved. Standards cannot, of course, make every court the same; they can create tools anyone can use for building workable applications. Thanks to the success of the Legal XML effort, electronic legal documents, including court filings, will be built from a common, rational, open standard.

The idea behind the Court Filing Standard is fairly straightforward. The standard is something on which the other components of electronic filing and data automation will be built. Each court probably already has its own case management system (CMS). It will need to have its own document management system (DMS), through which electronic documents (imaged and XML) can be indexed, stored, and accessed. The court and its vendor(s) will build electronic filing systems (EFS) that prepare and can recognize documents that comply with their filing requirements. Basic court forms will be online for litigants to use, filling in the blanks which will be tagged properly for data capture after filing. "XML container" forms may be provided for required data items, submitted with enclosed images or word-processed attachments. Vendors will sell electronic filing programs (EFP) to help law firms and other litigants create the electronic documents that will be compliant with the court's requirements.

XML documents are made up of ASCII text with tags representing pointers to data and instructions. To display them in human readable form, one needs style sheets and other tools that are only now emerging for such purposes. There is plenty of work to go around. Someone – courts, clerks, EFS and EFP providers, court administrators, or form and template builders – must set up thousands of documents as pre-tagged XML objects organized to capture data and transfer it by automation in usable form into the DMS and CMS.

Legal XML is a large effort to arrive at an early consensus before XML hits the mainstream. By helping with this effort, King County and Washington State are preparing in advance for XML documents and real electronic filing.

There is much education and training to be done. But electronic filing can begin with just one document and grow from there; to be really valuable, however, it needs most litigants to use it. To fulfill the vision of ECR, DJA is committed to go forward, even if it means building it on its own. As King County plans its electronic filing project, it hope the promise of Legal XML will be realized soon, with products and systems they and others can use.

Through its phased approach to its ECR program, King County DJA has established a strong infrastructure to handle electronic court records. The imaging repository and basic workflows are in place already. Image connectivity for the Court and county-wide criminal justice agencies is being built and tested now. For all the hard work that went into getting this far, all this may turn out to have been the easy part. Imaging and workflow and Web-based access use large scale, but well known and fairly mature technologies. ECR's Phase III, because it involves true electronic filing, will be harder, for it will require new technologies that are not so well-known nor so well developed. It will require standards that are only now being created. These standards, which will be very important, are not going to be written by a technology priesthood with expertise that places them far above the rest of us. These standards are being written by people just like all of us.

The stakes in using new document technology are high because it seems so essential, so unavoidable that we move away from archaic, expensive, slow-moving paper-driven systems. It is a given that there will be continued growth in litigation and thereby in documents created. Documents may become ever more complex – one might say richer – as vehicles for conveying new forms of information. We may soon see multi-media documents that talk and sing and display pictures and motion. How soon might litigants and courts insist they become part of our document systems?

It seems to us that this new frontier that includes electronic filing, electronic document management, data mark-up, and automation of data identification, capture, transfer, and use, will greatly facilitate everyone's work. Complex as this is, the ultimate beneficiaries of the new document technologies in our courts will be America's Judges and, through them, the people. New document technology means they will have information more quickly and completely when they render their decisions. Reliable document systems are an important part of the judicial system, providing everyone with a fair, impartial way to preserve and protect case information against all tampering. This document management mission is fundamental to our court system. Whatever we do with new technology, it will ultimately be judged by how well it serves the justice process itself.

[1] Source : courts.wa.gov/caseload/superior/ann/1999/filyr.html

[2] The Master Plan can be found on the World Wide Web as Attachment I to ECRReport0.doc or ECRReport0.pdf, which can be obtained at http://www.metrokc.gov/kcscc/sjiecr/ecrpage.html. Documents at that Web location comprise DJA's formal Report to the State Justice Institute on Grant No. SJI-96-06D-A-220, King County Electronic Court Records (ECR) Implementation.

[3] Ms. Michels has been the Executive Director of the Washington State Bar Association since 1998 where she remains an advocate for electronic filing technology. The Superior Court Clerk, Paul Sherfey, is now temporarily serving as Chief Administrative Officer over the Court and Clerk's Office. Barbara Miner is now the acting Court Clerk. Both Sherfey and Miner are leading DJA's ECR projects.

[4] Some vendors claim their product constitutes "electronic filing," but this is frequently far from true. The danger of jumping to a quick "solution" in this area is twofold: 1) electronic litigation can only be done in a limited area, usually accessible only to the technologically gifted, and 2) the resulting technology usually depends completely on one vendor for its continued operation.

[5] The winning vendor was Image-X of Goleta, California. For more information on this company, see http://www.imagexx.com. Image-X did not compete for the Core ECR contract.

[6] DJA used Fujitsu scanners for the archival imaging, with 2 "3099" models and 4 "3097" models. Each required a Dunord card.

[7] For information about Sierra Systems Group, Inc., see http://www.sierrasys.com.

[8] The cost of the Core ECR system included approximately $1.5 million for this contract, covering Sierra's professional fees, the principal system servers, the jukebox, and FileNET software licenses. Additional features identified after the business plan was adopted meant additional components totaling approximately $100,000 had to be defined and paid through contract amendments. The value of the DJA management and staff time given to the business analysis, participation in design, testing of system components, and training was extensive, though DJA has not attempted to calculate it. King County has provided an annual Operation and Maintenance fund for ongoing maintenance and support of Core ECR.

[9] Superior Courts in Washington have 8 main case types: criminal, civil, domestic relations, probate, and juvenile offender are publicly accessible except when sealed by Court order; parentage/adoption, mental illness, and juvenile dependency are case types sealed automatically by statute.

[10] "SCOMIS" stands for the "Superior Court Online Management Information System," one of several data systems managed by the Office of the Administrator of the Courts. Originally an ADAbase system, SCOMIS was upgraded a few years ago to DB2. Clerks reach SCOMIS through a central link from the County WAN, using a HostExplorer terminal emulator.

[11] Superior Court rules have required 8½" X 11" documents for several years for most filings. New rules now before the State Supreme Court will require filings to be on one-sided paper with 1" margins, except for the first page, which must have a 3" margin. The Clerk advises filers to use black or dark-colored ink when signing documents that will be filed; light blue inks fade away when imaged.

[12] Sometimes a page being scanned has patterns that are similar to the patch codes on the document separators. DJA staff must take pains to make sure the page gets imaged, for the FileNET capture program ignores the

document separators, i.e., it does not make an image of them.

[13] "Sub" is the term SCOMIS uses for a document in a case file, where each document must have a unique alphanumeric "Sub Number." Sierra's application deduces the appropriate sub number, based on a document's filed date and its relationship to filed dates for other documents already in the file.

[14] Average daily filings of papers for the case files held by DJA total 8,000. If there were time to stack them, they'd make a ten foot high stack every work day!

[15] There are times when the Court orders that a given record be obliterated from the Clerk's system. In such instances the disk(s) on which the record resides will be re-recorded (minus the deleted pages) on new disks, with the old disks reformatted. This is one reason DJA did not consider using WORM (Write Once, Read Many) disks.

[16] DJA intends, of course, to retain future "source documents" for a period to be determined, say, 30 to 60 days, as a safeguard against scanning or system errors. However, DJA's long-term intention is to eliminate hard copy case files completely for imaged cases.

[17] See Ancient and Modern by Robert Cary, in the March/April issue of e-doc (Volume 1, Issue 1, pp. 51-53) for a discussion of the meaning and importance of metadata.

[18] A paper on lessons learned, written by Michels, Winters, and Judge Dale Ramerman was published in The Justice System Journal (Volume 20/2, 1999, pp. 181-189) and in The Court Manager (Volume 14, No 3, 1999, pp. 12-16. An updated version of this article appears in the May 2000 Bar News of the Washington State Bar Association; see it at http://www.wsba.org/barnews/2000/05/Michels-Ramerman.htm.

[19] See http://www.legalxml.org/DocumentRepository/UnofficialNotes/Clear/UN_10008_2000_01_04.htm for a more extensive discussion by Roger Winters, "XML and Electronic Filing Issues for Courts."

[20] The Utah and New Mexico courts had each developed XML for their own systems. Working with New Mexico, the Joint Technology Committee of the Council of State Court Administrators (COSCA) and the National Association of Court Managers (NACM) was eager to build a partnership. The National Center for State Courts had been sharing its ideas on how to get to electronic filing. Federal Courts had begun to build systems using PDF documents. Georgia State University's Electronic Filing project was ready to help build standards. More about the genesis of this effort can be found at http://legalxml.org/Information/LegalXMLOverview.asp.

[21] Work is about to begin on version 2.0 of the Court Filing Standard. See http://www.legalxml.org for a link to version 1.0 of the proposed Standard, in PDF and Word formats.