



InterPARES 2 Project

International Research on Permanent Authentic Records in Electronic Systems

Areas That Should Be Covered Validated

Case Study 21: Electronic Filing System (EFS) of the Supreme Court of Singapore

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Creator of the Fonds		
TOPIC	SPECIFICS	SOURCE
Name	The Supreme Court of Singapore	FR, pg. 1
Location	Singapore	FR, pg. 1
Origins	<ul style="list-style-type: none"> Leading up to Singapore's independence in 1965 the judicial system was controlled by Britain, then merged with Malaysia between 1963-1969 Following independence in 1965, The Supreme Court of Judicature Act 1969, re-established the Supreme Court of Singapore, comprising the High Court, the Court of Appeal and the Court of Criminal Appeal. 	Supreme Court Web site
Legal Status	Judicial institution established by a legislative act	Supreme Court Web site
Legislation	<ul style="list-style-type: none"> The Supreme Court of Judicature Act, 1969 re-established the Supreme Court, consisting of the High Court, The Court of Appeal and the Court of Criminal Appeal 1993, the Court of Appeal and Court of Criminal Appeal were reconstituted into a single Court of Appeal for both civil and criminal appeals 	Supreme Court Web site
Norms	<ul style="list-style-type: none"> Bankruptcy Rules Rules of the Court 1997 Practice Directions issued by the Court 	FR, pg. 4-5 FR, pg. 5-6
Funding	Government	Inferred
Resources	<ul style="list-style-type: none"> Supreme Court Building made up of courtrooms, chambers and various facilities such as a library, electronic filing unit and information counter More detailed information about the physical context of the creator is available on the Supreme Court Web site 	Supreme Court Web site
Governance	<ul style="list-style-type: none"> The Supreme Court is organized into five departments: <ol style="list-style-type: none"> 1) Legal 2) Disciplinary Committee Secretariat 3) Corporate Services 	Supreme Court Web site

	<ul style="list-style-type: none"> 4) Computer Information Systems Department 5) Corporate Planning • The Chief Justice heads the institution • Under the Chief Justice are: judges and judicial commissioners, the Registrar, the Deputy Registrar, senior assistant registrars, assistant registrars and justice's law clerks 	
Mandate	"To ensure the administration of justice by establishing "an efficient and effective court to enhance access to justice and instill public trust and confidence in the court system""	FR, pg. 3
Philosophy	<ul style="list-style-type: none"> • To establish and maintain a world class judiciary • Four core values are identified: <ul style="list-style-type: none"> 1) Integrity 2) Quality Public service 3) Learning and Innovation 4) Ownership 	Supreme Court Web site FR, pg. 3
Mission	<ul style="list-style-type: none"> • To superintend the administration of justice • The Supreme Court of Singapore works towards its mandate by supporting the activities related to the four core values: <ul style="list-style-type: none"> 1) Integrity: ensure court decisions are fair, court staff members are not corrupt and court records are accurate 2) Quality public service: focus on accessibility, quality and timely delivery of services 3) Learning and innovation: to improve work processes and achieve the highest levels of performance 4) Ownership: establish a sense of ownership in the workplace and to value staff members 	Supreme Court Web site FR, pg. 3
Functions	<p>Presides over civil and criminal matters and comprises:</p> <ul style="list-style-type: none"> • Court of Appeal: hears appeals passed by the High Court • High Court: hears cases on matters such as company winding-up and bankruptcy proceedings; also hears civil appeal cases from lower courts • Constitutional Reference Tribunal: hears questions relating the provision of the Constitution referred by the president • Supreme Court Registry: responsible for the processing, registration and custody of records 	FR, pg. 3-4
Recognitions	<ul style="list-style-type: none"> • Managing Information Strategies Innovation Award (2003) for the implementation of an electronic filing system • National Infocomm Award (1999) for innovative use of technology • Further details of awards received by the Supreme Court are available on the Court's Web site 	Supreme Court Web site

Activities Resulting in Document Creation

Administrative & Managerial Framework

TOPIC	SPECIFICS	SOURCE
General Description	The creator must process, register, maintain and preserve bankruptcy records	FR, pg. 10

Type of activities	<ul style="list-style-type: none"> • Filing bankruptcy petitions • Checking the documentary form of the petitions • Checking the business procedures adhere to the legislation governing bankruptcy • Forwarding sealed and signed petitions to law firms • Filing summons • Documenting a petition was served to a debtor • Conduct hearings and record hearing proceedings • Recover court fees • Publish lists of bankrupts (on paper & scanned) 	FR, pg. 6-8
Documents resulting from activities	<ul style="list-style-type: none"> • Bankruptcy petition • Lodgment form • Affidavit of Truth of Statements in Bankruptcy Petition • Affidavit of Service • Power of Attorney or authority • Sealed and signed bankruptcy petition • Draft Order of Court for Substituted Service of Creditor's Bankruptcy Petition (if debtor is avoiding summons) • Engrossed Order of Court for Substituted Service of Creditor's Bankruptcy Petition • Ex-Parte Summons in Chambers • Affidavit in support of application for substituted service • Signed and sealed application for substituted service • Affidavit of Non-satisfaction • Signed and sealed petition for bankruptcy annotated with the date of the bankruptcy hearing • Record of bankruptcy proceedings • Hearing list • Correspondence with debtor to declare his/her assets • Published gazette on bankrupts 	FR, pg. 6-9
Existence of a RM and/or archives program	<ul style="list-style-type: none"> • Uniform classification scheme comprising all Supreme Court cases • Case files comprise case number, name of debtor and name of petitioner, case status (pending or concluded) and bankruptcy status (bankruptcy order, adjourned or withdrawn) • File reference number of the cases is based on the date a petition was lodged • A record register exists in the form of a sub-directory and includes the record profile (types of documents related to the case, document number, date documents filed, originator of the document (creator of the record)) 	FR, pg. 9
Individuals responsible for preservation	The Supreme Court	FR, pg. 29, 37
Existence of Preservation Strategies	Migrating technology to a newer platform	FR, pg. 29

Legal Requirements and Constraints	<ul style="list-style-type: none"> • Juridical regulations of the Court govern the business process and documentary forms of the records • Bankruptcy Act, 1995: enables bankruptcy petition to be initiated if a debtor does not pay a creditor within 21 days • Bankruptcy Act (Commencement) Notification, 1995 (also known as Bankruptcy Rules): outlines proceeding involved in bankruptcy, details the necessary documentary forms of records related to bankruptcy proceedings • Electronic Transaction Act, 1999: provides legislative framework for implementing e-services within government 	FR, pg. 4-5
Normative Requirements and Constraints	<ul style="list-style-type: none"> • The Bankruptcy Section of the Supreme Court has created an internal procedures manual and workflow chart on the process of filing bankruptcy petitions • Rules of Court 1997 • Practice Directions issued by the Court • User guides issued by the Court for law firms <p>Privacy issue: The Court ensures strict control and use of its records because the records contain information as to the credit worthiness of individuals and can be used as legal precedents. There is no privacy law in Singapore; law firms who want to consult the records must seek Court approval to be granted access.</p>	FR, pg. 6 FR, pg. 5-6 FR, pg. 21 FR, pg. 25, 29 FR, pg. 30
Technological Requirements and Constraints	<p>Architecture:</p> <ul style="list-style-type: none"> • Hybrid architecture • Law firm: uses a Web-based interface developed on Java/J2EE technology, WebLogi Application server and Oracle database • Court: workflow and record keeping system uses Visual Basic, Oracle database and Filenet document management system • Certificate Authority Management System managed by the courts to issue, revoke and manage digital certificates. It is a PC based network linked to the certificate server through a standalone PC <p>Creation tools:</p> <ul style="list-style-type: none"> • Personal computers • Certificate server <p>Processing tools:</p> <ul style="list-style-type: none"> • Key generating software • Visual Basic software for the Court's application system <p>Media:</p> <ul style="list-style-type: none"> • Textual <p>Formats:</p> <ul style="list-style-type: none"> • Unix • HTML style sheets • XML files • PDF (legal records submitted to the Court) • Case files of the Court are stored on WORM (Write Once Read Many) optical disks in a jukebox <ul style="list-style-type: none"> • The EFS system uses a Public Key Infrastructure (PKI) to digitally sign and encrypt records • A smart card is issued to each solicitor at the law firm and solicitors can choose to encrypt their records using the 	FR, pg. 9-15

	<p>smart card before submitting them electronically to the Court</p> <ul style="list-style-type: none"> • A secure Sockets Layer exists between the law firm and the EFS Service Provider's server to ensure records are transmitted securely • Hardware encryptors ensure the secure transmission of records between the EFS service provider and the Court 	
Digital entity being studied		
General Description	<ul style="list-style-type: none"> • EFS is an integrated workflow application and document imaging system • EFS has facilitated the filing of court records by law firms and enables the speedy retrieval and access of records and information through an electronic information system. • EFS enables law firms to electronically submit and sign their legal records to the courts online at all hours, without sending their clerks to wait in line at the court's registries, and can serve records to other firms electronically. • EFS permits online searches on relevant case information and extracts of records without the need of on-site inspections at the court registries. • Presently, the system has a total of over 1.5 million records, comprising about 20 million pages, creating a fully electronic civil registry for both the Supreme and the Subordinate Courts 	FR, pg. 1-3
Type of activities	<ul style="list-style-type: none"> • Setting up of Front End Application system by law firms to submit court records: law firms must register themselves for an EFS account and download the front end software from the Web; law firms are issued smart cards by the Court • Gateway Application System: Court records are routed from the law firm to the Supreme Court; the system computes fees, downloads code tables to the law firms and performs other validations on law firm submissions • Court's Internal Workflow Application: based on the business processes of the court; allows for processing, routing and approving the submission of court records by law firms • Creation and maintenance of digital certificates through the Key Management System: manages digital certificates 	FR, pg. 10-11
Documents resulting from activities	<ol style="list-style-type: none"> 1) Digital certificates 2) Databases (Oracle, Filenet) 3) PDF files 	FR, pg. 32
Existence of Preservation Strategies	<ul style="list-style-type: none"> • There is no directive for the long-term preservation of records in the EFS, apart from migrating technologies • 1996 report on the management of Court records recommends microfilm as the permanent storage for Court records • One option that has been considered is to outsource the management of digital certificates to a licensing certification authority so the certificates will be protected from technological obsolescence • Both the PDF documents and the documentary template are the digital entities that constitute records 	<p>FR, pg. 37</p> <p>FR, pg. 29</p> <p>FR, pg. 26</p> <p>FR, pg. 27</p>

	<ul style="list-style-type: none"> Once the submission by the law firm is accepted by the Supreme Court, the documentary template is stored in the Oracle database The PDF records are stored onto Optical Disks in a jukebox. (The optical disks are Write Once, Read Many Times (WORM) to ensure the information is not alterable.) 	
Legal Requirements and Constraints	<ul style="list-style-type: none"> Bankruptcy Act (Commencement) Notification, 1995 (also known as Bankruptcy Rules): details the necessary documentary forms of records related to bankruptcy proceedings Electronic Transaction Act, 1999: provides legislative framework for implementing e-services within government 	FR, pg. 4-5, 29-30
Normative Requirements and Constraints	<ul style="list-style-type: none"> Rules of the Court Practice Directions The Court has advised law firms to impose internal controls of the usage and delegation of the Smart Card because the card holder has sole responsibility concerning with the security, authorization and delegation of the usage of the Smart Card 	FR, pg. 5-6, 29 FR, pg. 36
Technological Requirements and Constraints	<p>Architecture:</p> <ul style="list-style-type: none"> Certificate Authority Management System is a PC based network, linked to a server with a standalone PC Oracle database to store documentary templates The same records are stored on three separate disks (onsite to facilitate online access to information, off-site storage of a second disk at the end of each week, off-site storage of a third disk once the disk is full Public Key Infrastructure <p>Creation tools:</p> <ul style="list-style-type: none"> Personal computers <p>Processing tools:</p> <ul style="list-style-type: none"> Key Generating Software Windows XP (certificate authority servers) Visual Basic software (Court's application system) Adobe Acrobat Microsoft Virtual Machine Filenet document management system <p>Media:</p> <ul style="list-style-type: none"> Textual <p>Formats:</p> <p>Law firm Front End Module</p> <ul style="list-style-type: none"> Cover page templates in HTML PDF court records Standardized HTML pages XML files <p>Court's Internal Workflow Application System</p> <ul style="list-style-type: none"> PDF court records UNIX <p>Daily and weekly backup of data kept in an off-site location</p>	FR, pg. 9-15 FR, pg. 28