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TEAM Malaysia

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Case Study Report

OVERVIEW

This study focuses mainly on developing mandatory functional requirements for the management of electronic court records in the Malaysian Court of Appeal. This study only covers Civil Court—i.e., Court of Appeal. Syariah Courts will not be included as the preliminary investigation reveals that the recordkeeping system in Civil Courts is more critical compared to the Syariah courts.

According to the National Center for State Courts, US (2001), to ensure that the system comprehensively meet a court's needs, each function must be examined separately for each case type. In other words, a separate set of standards must be developed for each general case type. Thus, this study is limited to *official civil records* in the Court of Appeal.

STATEMENT OF METHODOLOGY

The review of the literature was highlighted that the appropriate methodology to achieve the objectives of the study was qualitative methodology. More to the point, this study utilized the theory, methods and recordkeeping case study questions produced by InterPARES 3 project. A single case study approach was selected in this study. The rationale for single case design derived from the fact that in Malaysia, there is only one Court of Appeal, which handles cases throughout the entire of Malaysia. As Yin mentions,[1] a single case study approach is adopted for its uniqueness and contemporary aspects. For this study, interviews, content analysis and focus group discussions are the main instruments employed in the collection of data as shown below.

Table 1. Data collection methods in relation to the objectives

Objectives	Data Collection Methods
Identify and analyse the various international and national best practices of functional requirements for electronic records management and functional standards for courts.	• Content analysis
Investigate the current practices of the recordkeeping system in the Court of Appeal of Malaysia.	• Face to face interviews with those involved. • Content analysis

[1] Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.) (Thousand Oaks, CA: Sage).

Evaluate the applicability of the functional requirements developed in the practice of record management in the Malaysian Court of Appeal.	• Face to face interview by giving the IT personnel of Malaysian Judiciary to review the functional requirements. • Online focus group discussions by giving the international experts in Electronic Records Management to review the functional requirements. • Face to face focus group discussion with InterPARES team members chaired by the Director of InterPARES to validate the functional requirements.

DESCRIPTION OF CONTEXT

Provenancial Context

It is normally regarded as the creating body, its mandate, structure, and functions indicators include organisational charts, annual reports, official websites, the classification schemes, etc. Below are some certain indicators:

Mandate

In general, the mandate of the Malaysian Judiciary, including Court of Appeal, is to ensure efficient and effective judicial support services empowering the Courts to resolve cases with expedience and smooth performance and to ensure the Courts are endowed with proficient and sufficient human capital, finance, infrastructure, equipment and information technology services to effectually execute their roles, functions and responsibilities.

Vision

A vision can be described or defined in diversified ways; however, to be more precise, herein, it means to be an independent and respected judiciary.

Mission

Concisely, a mission needs to be stated to ensure that the administration of the judiciary has been conducted fairly and efficiently. Moreover, strict constraints and punishments should be stated and applied to avert any sort of biased and injustice misconducts.

Client charter

It is strongly focusing on handling and disposing of the case fairly in accordance with law within a specified timeframe; taking into account the cooperation of all parties involved is the goal of the Malaysian Judiciary.

Functions

In no controversial argument, the basic function of Court of Appeal is to attentively hear and justly determine appeals from any judgment or order of any High Court in any civil cause or matter, whether made in the exercise of its original or of its appellate jurisdiction, subject to any written law regulating the terms and conditions upon which such appeals are brought (section 67 of the Courts of the Judicature Act 1964). However, no appeal shall be brought to the Court of Appeal in the following cases:

i. if the amount or value of the subject matter of the claim is less than RM250,000/, except with the leave of the Court;
ii. the judgment or order is made by consent of parties;
iii. the judgment or order relates to costs only; and
iv. where by virtue of any written law, the judgment or order of the High Court is final.

Procedural context

The Court is rigorously concerned about the legal and organisational system in which it operates (indicated by laws, regulation's workflow rules, codes of administrative procedure, classification schemes, etc.). In other words, the procedural context of the Court of Appeal governs the legal and business process of the courts.

The findings reveal that the policies and procedures for records and archives management are limited. In Malaysia, despite the Malaysian Judiciary, the other bodies that have the responsibilities to develop policies and procedures on records management are the National Archives and the Malaysian Administrative Modernization and Management Planning Unit (MAMPU). However, the available policies and procedures with relevance to the court records management are as follows:

National Archives of Malaysia

- Retention Schedule for Court Records, 2010

The Malaysian Administrative Modernization & Management Planning Unit (MAMPU)

- ICT Security Policy: MAMPU, 2009

Malaysian Judiciary (Court of Appeal)

- Rules of the Court of Appeal

- Court of Appeal Practice Direction No 1, Year 2008
- Manual of Procedures: Civil Cases in Courts
- ICT Security Policy Chief Registrar Office, Malaysian Federal Court, 2010

Furthermore, other than the policies and procedures, concurrently, the Court of Appeal has to follow the instructions and orders from the Chief justice, the Chief Registrar, the Registrar of Court of Appeal, the Chief Judge of Malaya and circulars.

Regrettably, based on the investigation, all the policies mentioned above are not comprehensive enough to manage the court records systematically, and none of the policies define properly the recordkeeping functional requirements. ISO 15489 indicates that the leadership of an organisation should define broad records management parameters and standards to be applied in the organisation through a formal recordkeeping policy statement. Records management should be seen as an integral part of the way organisations do business rather than as additional processes. Thus, it is critical for courts to have systematic court (paper and electronic) records management requirements, which consist of all requirements for records management functions.

Specifying recordkeeping functional requirements is vital to any information system development to ensure the complete records functions being carried out, which include records identification and capture, records control and maintenance, and the retrieval access, as well as the consideration for the long-term preservation for the archival records. The U.S. Department of Defense, for instance, in its *5015.2 Standards Design Criteria Directive*, emphasizes a minimum set of functional requirements that proprietary software must meet to perform electronic recordkeeping functions in the Department. Organisations without trustworthy electronic recordkeeping systems are increasingly at risk.[2]

NARRATIVE ANSWERS TO RESEARCH QUESTIONS

Activities Resulting in the Management of Court Records

Recordkeeping system

The recordkeeping system in this study includes the management of the records life cycle (paper and electronic) in the Court of Appeal. Due to the nature of records to be used as evidence, a systematic recordkeeping system is essential. Several questions were asked based on recordkeeping and digital records research questions to assess the way court records were currently being managed. These questions covered areas for the creation, maintenance, storage, retention and disposition of records.

[2] Aliza, I. (2010). Assessing the practice of trusted electronic records management in Malaysia government-controlled companies (Unpublished doctoral dissertation). UiTM, Malaysia.

In response to the first question *"What are your thoughts about the current recordkeeping practice in this court?"* Interviewees A, B and C had a similar opinion. They noted that the current recordkeeping practice (i.e., the use of paper records) in the Court of Appeal is good. Files and appeal records are duly arranged. All of the records are kept in the file room but in different sections according to the records continuum (active records at the front section, semi active records in the middle, non-active records at the back). A well-organised and large file room enables the Court of Appeal to retrieve information easily. All of the records are kept in the spacious file room with appropriate equipment, such as mobile storage units and computers.

Regarding the electronic recordkeeping system, the findings convey that the Court of Appeal is in the early stage of implementing the electronic system. There are still many paper records that are not in the system. However, the Court of Appeal employs the Media Universe System to keep track of the records. The Media Universe System is only for tracking files in and out. It is not involved in the whole records management process from capturing the records until disposition. The Court of Appeal is at the early stages of implementing E-Court. The application systems available are the case management system (CMS), the Queue management system (QMS) and the court recording and transcription system (CRT). The e-filing system is not yet implemented in the Court of Appeal. Interviewee E defined each of the application systems in the E-Court as follows:

- Case Management System (CMS)

  System that allows management of all court activities from registration of cases to hearing of cases. It enables the following activities: processing and sealing of documents, easy search and retrieval of cases, issuing of alerts and statistics, file movement and tracking, creation of cause lists, scheduling of cases, management of judges' planners and many more activities.

- Queue Management System (QMS)

  This is a queue management system that facilitates the registration of attendance for counsel to effectively use its time at the Court to view its case management status, to check the status of the counter party, to view the digital billboard, to view public announcements, and to view short messaging system (sms) alerts.

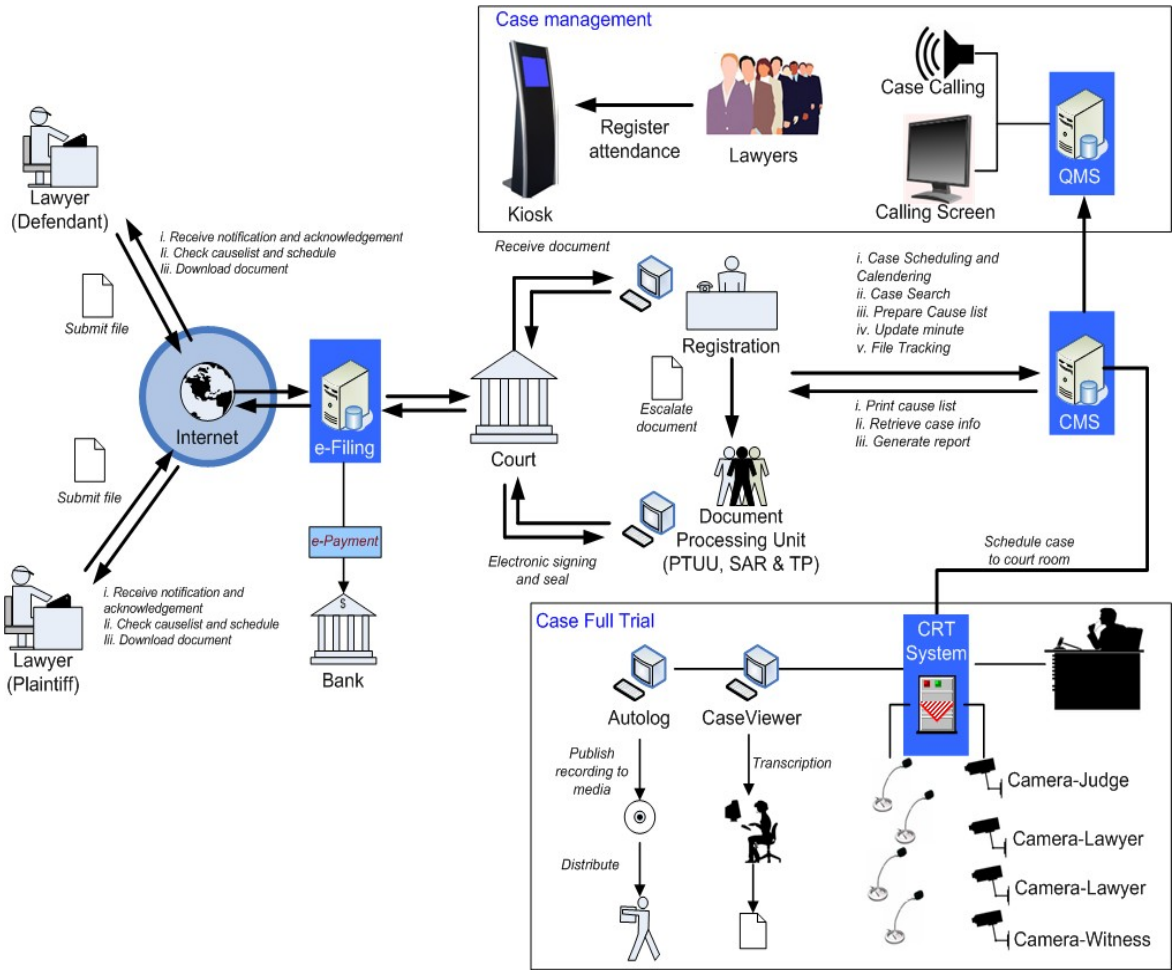
- Court Recording & Transcription System (CRT):

  This system enables audio-video recording of proceedings and, subsequently, facilitates creation of the transcript of the court proceedings. The available functions include: audio-video recording of trial, live streaming over a network, 5-track recording, voice activated video switching, multi-user logging of trial, single/multi-user transcribing, real-time segmentation for remote transcription, enhanced microphones, redundant recordings, and public/private modes.

- E-filing System

  This system enables filing and access to Court records/documents anytime and anywhere. The system consists of the registration and filing of documents, the retrieval of documents, the viewing of cause lists/calendars, the viewing of the general enquiry, the electronic servicing of documents, fraud detection and the receipt of alerts. The records in the e-filing system are stored in pdf and jpeg format. Interviewee D mentioned that the e-filing system is not yet implemented in the Court of Appeal. However, the system has already been implemented in the High Courts and the Subordinate Courts.

Figure 1. E-Court process flow



The above figure depicts the overall view of how the systems interact with each other within the E-Court process. In the process of a civil case, for instance, the lawyers (for both plaintiff and

defendant) will submit a file (e.g., notice of motion) through the online e-Filing System. A payment of fees is done via Internet banking. Once filed, the case will be managed through the case management system application (case scheduling and calendaring, case searching, preparation of a cause list, updating of minutes, file tracking, printing of a cause list, retrieval of a cause list and generation of a report). The queue management system is in operation when the case is being heard by the judicial officers. In the courtroom, when the trial proceeds, the court recording and transcribing system is in progress. This audio-video recording system allows the proceeding to be recorded fully in audio-video format, saved and retrieved when required.

The interviews also revealed that metadata are captured and registered in the required system (e.g., case management system). Subsequently, the system indicates the location of the hardcopy for the scanned or digitized records. For 'born digital' records the metadata are specified by the information system used. Examples of metadata for the case management system include: the case number or document number, the date and time of filing, the date and time of any hearing, an image of the signature of the registrar, total number of cases, and defendant name. Examples of metadata for the media universe system include: data request, case number, name request, for who and user logged.

In response to the question on the format that civil records should maintain, the interviews reflect that different groups of respondents have different opinions. Therefore, there are contrasting opinions among some of the records practitioners and IT managers. As Interviewee B noted:

> *Specifically, in order to be well-organized, secure, and for easy retrieval, it is preferable to be maintained in paper based. The reason I recommended for records being maintained by paper is the massively penetration to the electronic methods by a third party or hackers.*

Further to this, Interviewee B verified that the court does not face any difficulties retrieving paper-based civil records because the file room is well-equipped and organized. The same answer was highlighted by Interviewee C:

> *There is no difficulty regarding the retrieval of civil records because Court of Appeal already has file circulation records management system called Media Universe. If the records can't be traced, it is because of human-error.*

The response of Interviewee D was varied, with brief descriptions of the pros and cons of each format. According to Interviewee D, the civil records can be maintained in paper, which the interviewee considers to be a traditional, old method that is accompanied by many cons. For instance, it is time-consuming to retrieve or refer to a specific case record. Additionally, it is difficult to correct any errors.

However, maintenance by the electronic method is preferable since we now live in a digital world. The reason for preferring electronic maintenance is the efficiency in retrieving a particular case within seconds and the ease of error correction. Even so, the electronic method also has cons, such as penetration of the electronic devices if the system lacks a solid and robust protection system.

Herein, the perspective provided by Interviewee E was slightly different. Interviewee E recommended that records be kept in electronic form to avoid corruption, such as attorney-paid bribes to employees to get rid of important documents so that the trial cannot be carried out or so that there is no concrete evidence. In addition, Interviewee stated that the records can be easily tracked if they are stored in electronic form. At the moment, they are scanning all the cases and importing them into the Case Management System. This move could be considered good practice for creating and maintaining records in the electronic environment if the necessary recordkeeping functional requirements and metadata requirements are complied with. Unfortunately, however, the interviews revealed that there are no recordkeeping functional requirements or metadata requirements for Court of Appeal records.

The finding also revealed that neither records practitioners nor IT managers are aware of the Retention Schedule developed by the National Archives of Malaysia. Complying with the retention schedule for court records developed by the National Archives of Malaysia is compulsory to ensure the Court will maintain only necessary records that are needed for functional purposes. Unnecessary records should be maintained as well for backup or historical retrieval.

During the discussion on preservation, Interviewee E stated that backup tapes were used. However, when asked further about the preservation strategy and the preservation guidelines, Interviewee E said that the Court of Appeal is in the early process of implementing the electronic system. Other interviewees gave similar responses. This shows that the preservation strategy for the electronic records is still grey.

Moreover, another significant element that emerged from the interviews is managing electronic Court records within the context of trusted electronic records management. It is important to ensure trust in electronic records management as it is pertains to the issues of reliability, authenticity and accuracy of the Court's system. The concept of recordkeeping in general evolved from the need to preserve complete, reliable and accurate evidence of decisions.

For that reason, in response to the final question, *"What measures does the creator take to ensure the reliability, authenticity and accuracy of the electronic court/civil records and their documentation?"*, Interviewees D, E and F agreed that the use of the PKI digital certificate mechanism helps to ensure the integrity and authenticity of the messages. According to them, all

filing of records by law firms can only be made if the users are registered and obtain a smart card from the certification authority that allows the users to digitally sign the records. The interviews also revealed that the documents submitted to, and issued by, the Court are in PDF format to help prevent modification of the original, and that the information in the documents must be sufficiently accurate, comprehensive enough and from a reliable source so that the user of the information has confidence in the documents' reliability, authenticity and accuracy, as this will impact on the decision made by the judicial officer. In addition, once the records are filed and information is entered into the documentary template by the law firms, the Court cannot amend the information.

Types of Court Records (Civil Cases)

Interviews with record practitioners revealed that the types of civil case records filed include: civil appeal, record of appeal, notice of appeal, notification for appeal number, notification for hearing date, notification for case management, correspondences and endorsement.

After getting feedback from the interviewees regarding the types of civil records, the researchers showed a list of civil records that was obtained from the Retention Schedule for Court Records for an approval. Interviewees agreed and confirmed that all the records listed in the Retention Schedule are accurate. Therefore, the researchers adopted the following list of the types of civil records that are available in the Retention Schedule for Court Records developed by National Archives of Malaysia when developing the functional requirements:

- Indexes of the appendix number
- Filed a letter of appeal
- Notification letter for an appeal number
- Application letter for the extension of time to file records of appeal
- Permission letter for the extension of time by the president of the Court of Appeal
- Letter of filing of appeal by the lawyers
- Letter of filing a notice of motion by the lawyers
- Record of appeal (civil)
- Notice of motion
- All letters regarding the proceedings
- Notification letter of hearing date for notice of motion and appeal
- Letter of filing draft order for notice of motion or appeal
- Submission letter for an approved draft orders
- Letter of filing for a fair order
- Duty officer report forms
- Letters relating to civil actions
- Bills of cost (if any)

Staff competency

What is clear from the interview responses is that, despite the lack of training on records management (both paper and electronic), and all of other interviewees were unaware of the existence of the training on managing and preserving records that is conducted by the National Archives of Malaysia. To empower staff with strong competencies in their responsibilities regarding managing court records, they should be exposed to extensive training that qualifies them to implement systematic records management in the Court of Appeal.

Areas of improvement

In response to the question, *"What are some of the areas of improvement would you like to see in the current recordkeeping practice?"*, Interviewee B indicated that the improvement of recordkeeping is very essential given the large volume of cases that are continuously coming in. Therefore, immediate actions need to be taken into consideration, such as recruiting qualified staff and sending staff (senior and junior staff) to have proper training to enhance their expertise in managing court records. Interviewee C noted that all procedures need to be documented for easy reference.

Interviewee's D, E and F strongly believe that it is important to fully embrace the use of technology to cut down the use of paper. They stress the importance of moving the Court of Appeal into an electronic system, i.e., E-Court. They believe E-Court would bring about a change in the Court. It would reduce labor intensity by reducing reliance upon court clerks. With an electronic system such as e-filing, law firms would submit records electronically to the Court instead of sending clerks to physically file records to the Court of Appeal. It would solve the problem of the storage of paper records and would improve case file security and case backlog. All in all, it would improve efficiency and shorten the time taken to process cases and it would streamline workflow processes by speeding up case disposal and the retrieval of case records.

FINDINGS AND PRODUCTS

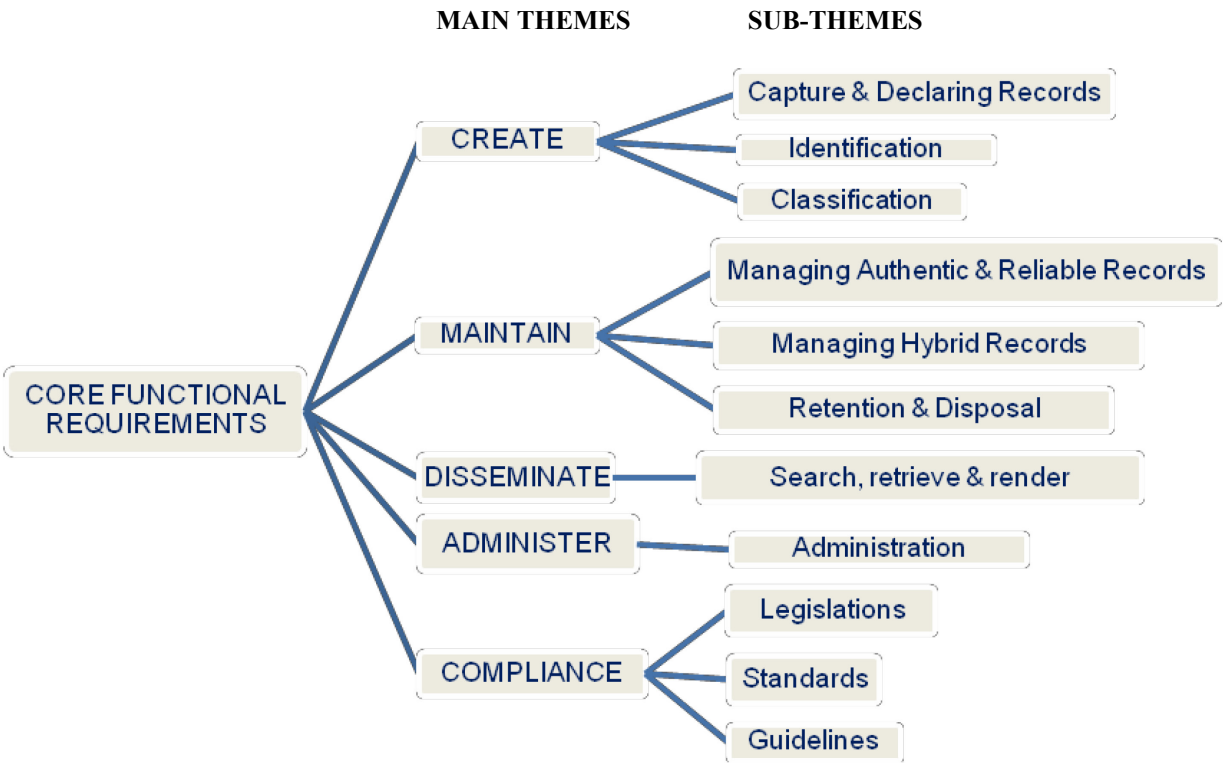
Findings of Product 1: Framework of core functional requirements for electronic civil records management

To develop the conceptual framework of the core functional requirements for electronic civil records management, the researchers had to identify and analyse the various international and national best practices of functional requirements for electronic records management and functional standards for courts.

The analyses were done in two ways: manual data analysis and computer-supported data (NVivo7) analysis. The researchers have constructed themes and sub-themes of functional

requirements. The themes and sub-themes developed were based on specifications produced by the National Archives of Malaysia and the International Council on Archives (ICA). Due to the fact that the specification developed by the National Archives of Malaysia has been chosen as the benchmark for this study, while the other specification was developed with participation with Malaysia, the researchers were strongly influenced by these two specifications. However, the researchers added one new theme and three sub-themes.

Figure 2. Themes and sub-themes of core ERM functional requirements summarized from the seven specifications.



To explain the data analysis report and discussion, the researchers have coded all of the seven specifications into alphanumeric coding. As an example, S1 refers to the specification developed by the ICA titled, *Principles and Functional Requirements for Records in Electronic Office Environment: Guidelines and Functional Requirements for Electronic Records Management System*. This is shown in Table 2, below.

Table 2. Records management specifications analysed

SI	Principles and Functional Requirements for Records in Electronic Office Environment: Guidelines and Functional Requirements for Electronic Records Management System (International Council on Archives, 2008)
S2	Model Requirements for Electronic Records Management (MoReq2, European Communities, 2008)
S3	Electronic Records Management Software Applications Design Criteria Standard (DoD5015-02-STD, US Department of Defense, 2007)
S4	Functional Specification for Electronic Records Management System Software (National Archives of Australia, 2006)
S5	Requirements for Electronic Records Management Systems (Functional requirement) (United Kingdom Public Record Office, 2002)
S6	Requirements for Assessing and Maintaining the Authenticity of Electronic Records (InterPARES 1, 2002)
S7	Electronic Records Management System: System Specification for Public Office (National Archives of Malaysia, 2008)

All of the specifications focus mainly on the functional requirements for an Electronic Records Management System. However, the requirements developed by the InterPARES Project, titled *Requirements for Accessing and Maintaining the Authenticity of Electronic Records* (S6) is intended for the preserver's assessment of the authenticity of the creator's electronic records to enable the preserver to attest to the authenticity of copies of inactive electronic records**.**

Each of the specifications listed in Table 2 identify the functionality a recordkeeping system must possess. However, the percentage of the content covered by each specification differs. As shown in Table 3, S1 covers 7.7% of the content on capturing and declaring records while S2 covers 9.2%. On the other hand, for the sub-theme, *Managing Authentic and Reliable Records*, S6 reaches a percentage of 95.7%, since it deals specifically with the "Requirements for Assessing and Maintaining the Authenticity of Electronic Records." As for the functional requirement specification, each sub-theme obtained coverage of less than 10% for every function that is identified.

Table 3. Percentage of coverage of content for each specification by sub-theme

Specifications / Sub-Themes	S1	S2	S3	S4	S5	S6	S7
Capture	7.7	9.2	7.2	6.8	2.8	0.9	6.1
Identification	0.9	0.5	0.8	1.0	0.5	7.7	0.7
Classification	6.3	9.6	6.9	4.4	1.6	-	4.9
Managing Authentic and Reliable Records	8.7	5.1	30.6	9.9	7.5	95.7	6.7
Hybrid Records Management	2.5	2.1	23.2	3.3	2.2	-	1.9
Retention and Disposal	9.1	6.1	18.9	8.1	18.9	4.4	7.0
Search, Retrieve and Render	5.9	4.0	0.9	4.9	5.0	1.3	5.0
Administration	3.7	4.4	1.8	8.4	4.5	2.4	3.5
Compliance	0.3	0.4	0.5	1.4	1.1	-	0.2

As expected, all of the seven specifications collectively show similarities in their content. Therefore, every theme in the table above that represents the functionality of a recordkeeping system must be included when specifying the functional requirements for an ERMS. However, most of these are generic requirements, such as S1, S2, S4, S5 and S7. Therefore, organisations that wish to make use of these requirements as a baseline or benchmark will need to consider their own specific needs and contexts.

On the other hand, the level of approach used by the seven functional requirements is slightly different. Based on manual analysis, it was noted that S1, for instance, divided the functional requirements according to creation, maintenance, dissemination and administration, while S3 separated them differently (mandatory / non-mandatory). In the case of S2, the distinction was in terms of core functional requirements, non-functional requirements, metadata requirements and reference model.

For this study, the functions developed were based on the specifications of S7. As mentioned earlier, the researchers were strongly influenced by this specification because this specification has been chosen as the benchmark for the study. The researchers have followed the main structure of the core functional requirements of this specification: creation, maintenance, dissemination and administration. However, the researchers have added one extra theme; ‘compliance’, which the researchers feel is necessary for this study. The sub-themes for ‘compliance’ are ‘legislations’, ‘standards’ and ‘guidelines’. The rationale for adding compliance

was because the specification is specific to the Superior Court of Malaysia. Therefore, the researchers felt that it was necessary to know the Courts' procedures to produce the requirements that are consistent with the legal and procedural context in which the Court operates. In addition, the literature also suggests that ERMS must meet relevant local, national and international requirements for recordkeeping and records management.

To produce readable and precise requirements, the researchers have concentrated on a specific area of functional requirements. For the purpose of this study, the researchers have identified the mandatory functional requirements for records management. Other requirements, such as general system requirements, design requirements and optional module requirements, are not included. Other requirements will be considered in future research. Therefore, the Enterprise Content Management and the Collaboration Management requirements in S7 were excluded. Additionally, the Public Record Office points out that an ERMS may fulfill the core requirements without fulfilling any optional module requirements.[3] However, if an ERMS wishes to demonstrate the capability of providing one or more of the areas covered by optional modules, within the context of ERM, it must first fulfill all of the mandatory requirements.

Additionally, there is a major difference between the traditional approach to managing records and the approach advocated by the above specifications, which involves early identification and capturing of all associated information and metadata regarding the content, context, structure and presentation of electronic records. With regard to electronic records, long-term preservation is related to both the *creation* and the *capturing* of the records. ISO 15489 (2001)[4] highlights that many records systems, particularly electronic records systems, identify the disposition status and retention period of the record at the point of capture and registration. Determining which records should be captured and how long they should be kept is most effectively undertaken in a systematic way and according to laws and regulations. This process requires reference to a disposition authority of a more or less formal nature depending on the size and nature of the organisation and its accountabilities. The disposition authorities may prescribe permanent preservation, either within the organisation, such as the Superior Courts, or in a separate archival institutions, such as the National Archives of Malaysia.

On the whole, it can be concluded that the analysis was able to identify common functions in the specifications. The main functional requirements of ERM were identified**.** This essentially provided a frame of reference to the researchers.

To identify the functions of electronic court records that focus on civil appeal records, the researchers analysed various specifications. Besides analyzing two related requirements of the Malaysian Courts, the researchers also analysed international standards of electronic filing

[3] National Archives of Malaysia, Public Record Office (2002). "Electronic Records Management System (ERMS): System Specifications for Public Offices." http://www2.arkib.gov.my/borang/Latest%20ERMS%20Specifications%20v1.9.pdf
[4] International Organization for Standardization - ISO (2001). "*ISO 15489-1:2001 - Information and Documentation - Records Management - Part 1: General."*

system and case management system specifications. Standards for electronic filing process analyses were formulated as a part of electronic records management process. On the other hand, the latter analyses were done because civil case records are court records and, according to Kenneth (2009),[5] court records include any information in a computerized case management system created or prepared by the court in connection with a case or judicial proceeding. For that reason, case management system specifications were analysed. Finally, the researchers also analysed the "Electronic Filing System of the Supreme Court of Singapore IDEF0 Activity Model" to gain a clearer picture and better understanding of the workflow involving the electronic filing system of court records in Asia. The list of the specifications analysed is shown in Table 4.

Table 4: List of specifications analysed for court filing systems

RI	Standards for Electronic Filing Processes: Technical and Business Approaches, National Consortium for State Court Automation Standards (2003)
R2	Functional Requirements Documents (Supreme Court of Florida Office of the State Courts Administrator, 2002)
R3	Requirements for UK Supreme Court Case Management System. 2008
R4	Requirements for Delivery of Electronic Document & Records Management application for UK Supreme Court (2008)
R5	Functional Specification: Full Court Pilot Project of Case Management System for the Montana Districts Courts (Draft) (Supreme Court of Montana, 2007)
R6	Software Functional Requirements Version 1.0: Texas Data-Enabled Courts for Kids (TexDECK)(2008)
R7	Civil case management System Functional Standards, National Centre for State Court, 2001
R8	Protection of Electronic Case Records in Paperless Court Operations, Arizona Court of Judicial Administration (Draft), 2008
R9	Electronic Filing System of the Supreme Court of Singapore: IDEF0 Activity Model, InterPARES, 2005
R10	ICT Security Policy: Chief Registrar Office, Federal Court of Malaysia, 2010
R11	Classification of Appeal Codes, Court of Appeal Malaysia, 2008

After thorough analysis of eleven functional standards of courts, a total of eight sub-themes were identified as being the most appropriate and relevant to the functions for civil cases/records

[5] Kenneth, Vercammen (2009). "Civil court rules, civil statutes, jury charges in New Jersey." Retrieved October 2009 from http://civiljury.blogspot.com/2009/08/138-2-definition-of-court-records.html.

management. This analysis was similar to the previous analysis on the functional requirements of electronic records management. The sub-themes are listed in Table 5.

Table 5. Sub-themes that represent the functions of civil records management and the percentage of coverage of the content of every sub-theme

Specifications / Sub-Themes	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11
Case Management	-	3.4	5.4	-	3.5	29.1	16	-	34.6	4.5	-
File and Document Management	9.0	4.2	17.6	5.8	0.3	4.8	9.0	36.9	20.2	-	4.1
Malaysian	-	-	-	-	-	-	-	-	-	-	13.7
Imaging	-	-	-	-	24.2	-	-	4.8	2.4	-	-
Security	3.8	-	-	0.0	4.6	-	-	-	13.4	39.6	-
Disposition	0.5	1.4	5.0	0.1	-	0.3	3.1	26.0	3.8	0.6	-
Reporting	-	1.7	7.2	-	11.1	-	-	-	1.5	1.2	-
Compliance	-	-	2.4	-	-	-	-	-	-	3.8	-
Total coverage:	**13.3**	**10.7**	**37.7**	**5.9**	**43.8**	**34.2**	**28.1**	**67.7**	**75.9**	**49.7**	**17.8**

As we can see, the specification that contains the most sub-themes (6 sub-themes) is R9, which covers 76% of the sub-themes. In contrast, R4, which has the least sub-themes coverage (3 sub-themes), covers only 6% of the sub-themes.

Another interesting comparison is the sub-theme that is covered by most of the specifications, which is 'file and document management'. This shows that file and document management is essential to the efficient and effective processing of the Court's activities and transactions. In addition, other functions or sub-themes are also needed, as they provide a full range of the functional capabilities and features deemed desirable in electronic court records management. In sum, the researchers found that all of the sub-themes identified are essential for ensuring that the system comprehensively meets the Court's needs.

The next phase of the analysis involved synthesizing and integrating the relationship between the functions of electronic records management and the functions of civil cases/records management. This relationship is shown in Table 6 in tabular form. This table represents the functions of electronic records management (in columns), and the functions of civil cases/records management (in rows). The tick (√) shown at the intersection of a row and a column indicates

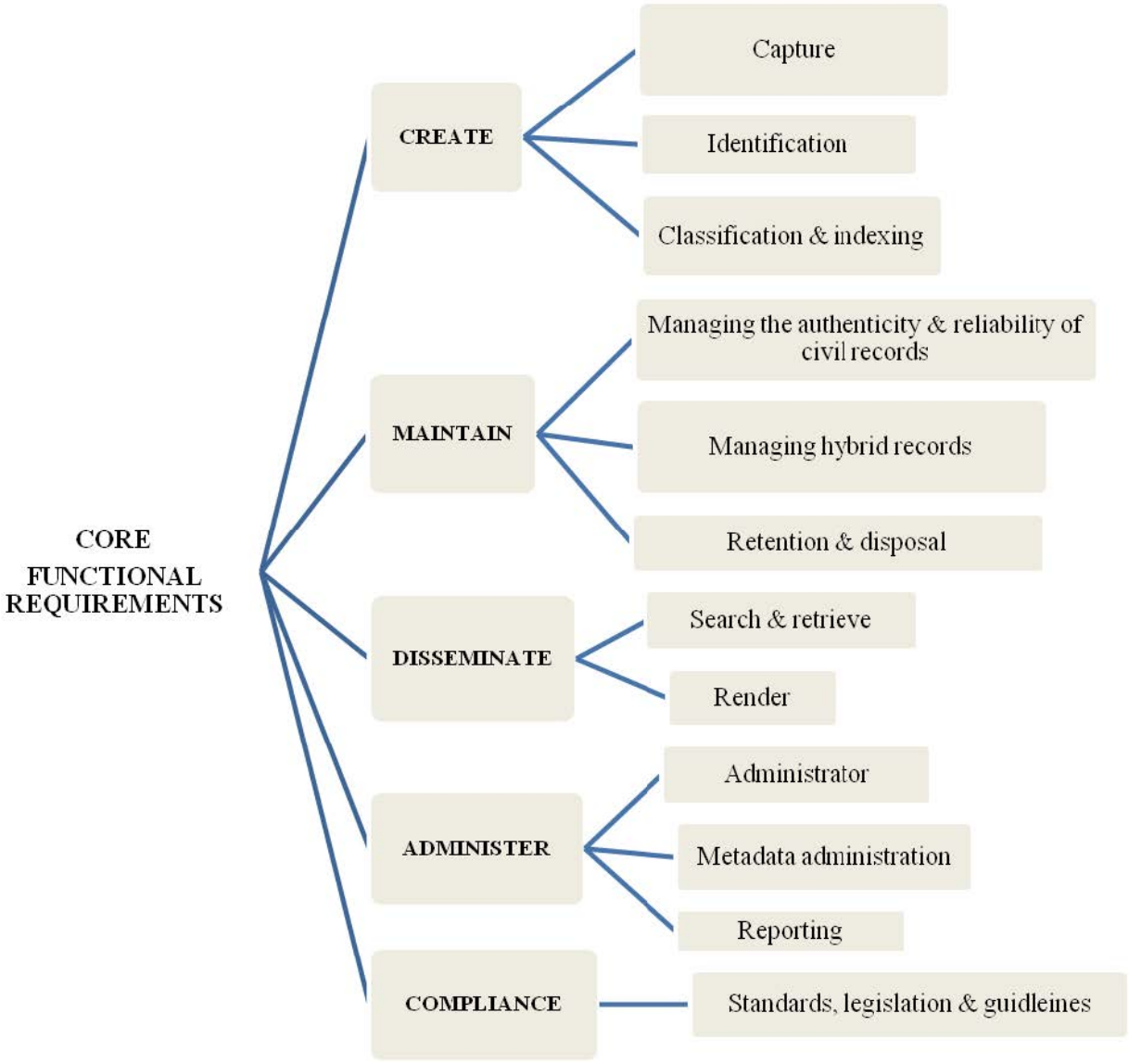
that the corresponding functions of civil cases/records management is in compliance with the functional requirements of electronic records management. For instance, case management involves the capture; registration; identification; retention and disposal; search, retrieve and render; and administer functions. However, after the analysis and synthesis process, the researchers found that it was necessary to refine the civil cases/records management functions to match with the ERM functions. Thus, the refinement of the civil cases/records management functions has been done as shown in figure 3.

The final phase is developing a framework of core functional requirements for electronic civil cases/records management. The framework indicates the integration between ERM functional requirements and the functions of civil cases/records management. Based on the framework in Figure 3, the core functional requirements of electronic civil records management are grouped according to the ERM clusters—i.e., Create; Maintain; Disseminate; Administer and Compliance, while the sub-functions present the integration and refinement of ERM functions and civil cases/records functions. These include: Capture; Identification; Classification and indexing; Managing the authenticity and reliability of civil records; Managing hybrid records; Retention & disposal; Search, retrieve and render; Administrator; Metadata administration; Reporting, and compliance with Standards, legislation and guidelines.

Table 6. Comparison of the main functional requirements of electronic records management with the functions of civil records management

ERM Functions / Court Functions	Capture & Declaration	Registra-tion	Identifi-cation	Classifi-cation	Manage Authentic & Reliable Records	Manage Hybrid Records	Retention & Disposal	Search Retrieve & Render	Administer	Compliance
Case Management	√	√	√				√	√	√	
File, Document & Property Management	√		√	√	√		√	√		
Civil Appeal Codes				√						
Security	√		√		√	√	√	√		
Imaging						√				
Reporting									√	
Disposition							√			
Compliance										√

Figure 3. Framework of core functional requirements for electronic civil records management



Findings of Product 2: The functional requirements for the management of electronic court records in the Malaysian Court of Appeal.

Below is the final version of the functional requirement that has been revised through several stages.

FUNCTIONAL REQUIREMENTS FOR

THE MANAGEMENT OF ELECTRONIC COURT RECORDS (CIVIL CASES) IN THE MALAYSIAN COURT OF APPEAL

1. INTRODUCTION

Recordkeeping functional requirements describe what the system should be able to do and the functions it should perform to ensure records are managed properly. This specification is based on the analysis of eighteen international and national best practices of functional requirements for electronic records management and court management and in-depth interviews with records practitioners and IT Personnel in the Court of Appeal. Additionally, this specification lists all the necessary procedures, guidelines and policies that need to be complied by the Malaysian Court of Appeal.

1.1. Purpose

The purposes of this specification are as listed below:

- to define the court records management functionality to be included in a design specification when building, purchasing or upgrading electronic court records management systems software;
- to provide basic guidance to create, maintain, disseminate and administer the electronic court records in the Court of Appeal.
- to assist a recordkeeping audit or review the records management functionality or assess the capability of available software packages that is currently in place.

1.2 Scope

The primary focuses of this specification are as listed below:

1.2.1 Mainly on recordkeeping requirements in the Malaysian Court of Appeal while requirements that are not specific to, or necessary for records management; for example general system management and design requirements are excluded.

1.2.2 The obligation level of these requirements is ‘mandatory’.

1.2.3 Limited to civil cases in the Malaysian Court of Appeal.

1.3 Content of Functional Requirements

A list and description of the functions is provided below.

1.3.1 Create

1.3.1.1 Capture
1.3.1.2 Identification
1.3.1.3 Classification

1.3.2 Maintain

1.3.2.1 Managing the authenticity, reliability and integrity of court records
1.3.2.2 Retention and disposal

1.3.3 Disseminate

1.3.4 Administer

1.3.3.1 Search, retrieve and render
1.3.4.1 Administrator functions
1.3.4.2 Metadata administration

1.3.5 Compliance

1.3.4.3 Reporting functions
1.3.5.1 Policies and procedures

CREATE	
1.0	**Capture** ***Description:*** The process of fixing and initiate the content, structure and context of a record to ensure that it is a reliable and authentic representation of the activities in which it was created.
1.1	The system must ensure that electronic court records created or received can be captured, registered and stored along with associated metadata. as examples: • The system must be able to receive notice of appeal and capture all the appeal items. • The system must be able to register appeal number.
Note: ***"Electronic court record" for all of these requirements refers to any civil files, documents or other material that has been filed electronically or an electronic copy or version of a record that was filed in paper form, which is created, received or maintained by the court before, during and after legal proceedings. The types of court records for civil cases in the Retention Schedule for Court Records developed by National Archives of Malaysia (2010) are as listed below:*** • ***Indexes of the appendix number*** • ***Filed a letter of appeal*** • ***Notification letter for an appeal number*** • ***Application letter for the extension of time to file records of appeal*** • ***Permission letter for the extension of time by the president of the Court of Appeal*** • ***Letter of filing of appeal by the lawyers*** • ***Letter of filing a notice of motion by the lawyers*** • ***Record of appeal (civil)*** • ***Notice of motion*** • ***All letters regarding the proceedings*** • ***Notification letter of hearing date for notice of motion and appeal*** • ***Letter of filing draft order for notice of motion or appeal*** • ***Submission letter for an approved draft orders*** • ***Letter of filing for a fair orders*** • ***Duty officer report forms*** • ***Letters relating to civil actions*** • ***Bills of cost (if any)***	
1.2	The system must support mechanisms for capturing electronic records received by the system that are: 1.2.1 automated (electronic or imaged) 1.2.2 a combination of automated and manual
1.3	Records may also comprise more than one component. Therefore, when capturing electronic records that have more than one component; the system must maintain a relationship between all components and associated metadata so that they can be managed as a single record and retain the structural integrity of the record.

1.4	The system must be able to capture in bulk records exported from other systems.
1.5	The system must support the Malaysian e-court system.
Note: ***The Malaysian e-court system consists of e-filing, case management system, queue management system and court recording & transcription system. However, these requirements strongly support e-filing and case management system of the e-court due to the facts that these two systems are focusing on managing case, documents and records.***	
1.6	The system must *alert* a user to any failure to successfully capture records.
1.7	The system must be able, where possible and appropriate, to provide a warning if an attempt is made to capture a record that is incomplete or inconsistent.
2.0	**Identification** ***Description:*** The process of constantly linking court records or aggregations with a unique identifier.
2.1	The system must ensure each electronic record is uniquely identifiable.
2.2	The system must be able to register, generate and store unique identifiers automatically, and prevent users from inputting the unique identifiers manually and from subsequently modifying them.
3.0	**Classification and indexing** ***Description:*** The systematic process of organizing court records in groups or categories according to methods, procedures, or conventions represented in a classification scheme and establishing access points to facilitate retrieval of court records. The index is created at case initiation and maintained throughout the life of a case.
3.1	The system must support and be compatible with the court classification scheme.

Note:

Since this specification is mainly for the Court of Appeal, the system must be able to recognize all appeals according to code states and subjects as follows:

3.1.1 State Codes

Perak = A
Pulau Penang = P Selangor = B
Sarawak = Q
Pahang = C
Perlis = R
Kelantan = D
Sabah (including Labuan) = S
Johor = J
Terengganu = T
Kedah = K
Wilayah Persekutuan = W (including Putrajaya)
Melaka = M
Negeri Sembilan = N

3.1.2 Codes according to items/subjects

01 = Civil Appeals by or against Government of the High Court under the Government Proceedings Act 1956, case related to constitution, reference land, income tax appeals and the appeal involving statutory bodies.

02 = General Civil Appeal (not including appeal under code 01, 03 and 04).

03 = Civil appeals based on the decision of the Registrar, Deputy registrar, or the Senior Assistant Registrar of the High Court.

04 = Civil appeals based on the results of Subordinate Court or Tribunal.

3.2	The system must be able to include letters (IM) after the codes for civil appeal against the interlocutory decision.

Note:

***Example of Interlocutory matters is listed in 'Appendix A' in the Court of Appeal Practice Direction No1 Year 2008* (Arahan Amalan Mahkamah Rayuan Bil 1 Tahun 2008).**

3.3	The system must support close linkage and interaction between a record's classification and other records management processes, such as capture, access and security, disposition, searching and retrieval, and reporting.
3.4	The system must allocate a unique identifier to each term defined within a records classification scheme.

Note:

Regarding an appeal filed by or against the Government in the State of Perlis, the unique identifier of the case number is as follows:

- ***"Rayuan Sivil No. R - 01 - - 2007"***

For civil appeal against the interlocutory, the decision of the appellant should include letters (IM) after the code such as below:

- ***"Rayuan Sivil No. R - 01 (IM) - - 2007"***

MAINTAIN	
4.0	**Managing the authenticity, reliability and integrity of court records** ***Description:*** The activities associated with controlling, storing, tracking, appraising, preserving and disposing of manual, electronic, and imaged records to maintain the reliability and authenticity of court records.
4.1	The system must maintain authenticity, reliability and integrity of court records and metadata at all times, regardless of maintenance activities, other user actions or failure of system components.
Note: ***According to the InterPARES 3 Glossary of TEAM Malaysia (2010), reliability refers to the trusted representation of the transactions, and the activities to which they indicate and can be depended upon in the course of subsequent transactions or activities. Authenticity means that the record is what it claims to be and has been created by the organisation to which it is identified (NARA, 2005). Record integrity refers to the completeness of the record, which highly depends on the three key attributes of a record, i.e., its content, context and structure.***	
4.2	The system must enable the Court of Appeal to demonstrate the authenticity, reliability and integrity of records against media deterioration following transmission (from one system to another), and over time.
Note: ***See 7.11 for preservation strategies.***	
4.3	The system must be able to maintain and display the audit trail of file additions, modifications, and deletions.
4.4	The system must enable the Court of Appeal to set multiple levels of security (as listed below) to assign to system users.
Note: The levels are: ***Level 1 - For court users (e.g., clerk's office staff) who individually have different privileges on the system but collectively can enter data and records, access most data and records, and change some data and records. The system, data, and records must be protected from unauthorised access.*** ***Level 2 - For official users outside the court who frequently submit filings and who need to access information from the system (e.g., attorneys of record), there must be protection from access to unauthorised parts of the system, from submission of incorrect data and records, and from direct entry of data and records (i.e., only Level 1, users would be permitted to enter data and records directly into the system).*** ***Level 3 - For unofficial users (e.g., the public), there must be protection from any access that goes beyond viewing limited parts of the system's data and records.***	
4.5	The system must be able to authenticate by whom and the means of authentication by using the existing PKI and System Login used by the Court of Appeal.

Note: ***The activities associated with controlling access and security to support the maintenance of authenticity, reliability, integrity and usability during normal operations and after a system failure or outage.***	
4.6	Only authorised users who are successfully identified and authenticated are allowed to carry out any action in the system as follows: 4.4.1 The system must allow authorised users to save court records directly to the appropriate file location. 4.4.2 The application must allow users to send court records via the agreed communication device. 4.4.3 The system must allow users to search for court records or file locations in a number of formats.
4.7	The system must ensure electronic court records cannot be modified without notifying the authorised person.
4.8	Allow access and similar privileges based on authorizations defined, maintained, and controlled by the user.
4.9	Restrict local and remote access and permissible operations (i.e., view, add, change, delete; combinations of view, add, change, delete, and output) on case types, case categories, files, parts of files and system functions, devices (e.g., personal computers), locations, users and groups of users.
4.10	Provide adequate security if public access is allowed.
4.11	Provide secure password for users.
Note: ***"Secure password" means that a password must contain strong combinations of alphanumeric, numbers and symbols. The length of the passwords must be at least 12 characters.***	
4.12	The system must be able to protect the audit trail against modification by any user, including a System Administrator.
4.13	Provide for disaster recovery (e.g., reconstruct status of system and its case processing and financial functions and data, such as permitting access authorization tables).
4.14	The system must be able to manage hybrid court records.
Note: ***A hybrid system is defined as an environment consisting of both electronic and non-electronic records. The management of hybrid court records includes functionality for managing court records in both non-electronic and electronic format. Electronic court records can be linked to non-electronic court records through a securely bound metadata relationship to form a hybrid record.***	
4.15	The system must be able to accept the importation of non-electronic court records into the electronic records in accordance with statutes and rules.

Note: ***In circumstances, the system must allow both kinds of record to be managed in an integrated manner.***	
4.16	The system must allow non-electronic court records that are associated as a hybrid with an electronic aggregation (class, file, sub-file, volume) to use the same title and numerical reference code but with an added indication that they are hybrid non-electronic records.
4.17	The system must allow a different records management metadata element set to be configured for non-electronic and electronic aggregations.
Note: ***Non-electronic aggregation records management metadata must include information on the physical location of the non-electronic aggregation.***	
4.18	The system must ensure that retrieval of non-electronic court records displays the records management metadata for both electronic and non-electronic records associated with it.
4.19	The system must include features to control and record access to non-electronic aggregations, including controls based on security category, which is comparable with the features for electronic aggregations.
4.20	The system must support tracking of non-electronic aggregations by the provision of request, check out and check in facilities that reflect the current location of the item concerned.
Note: ***Currently, the Malaysian Court of Appeal is using a system called 'Media Universe' to track the circulation of incoming and outgoing files/records in the file room.***	
4.21	Scanning and imaging – The system must has the ability to: 4.21.1 scan images in standard formats; 4.21.2 allow users to capture scanned images as records; 4.21.3 automatically send scanned images to a queue after for indexing and quality assurance; 4.21.4 attach documents to a case (i.e., minute entries); 4.21.5 ensure appropriate security (access) to case images and documents from within the case management system; 4.21.6 enable authorised users to search and retrieve scanned images and documents; and 4.21.7 hide sensitive specific information (demographic info and personal identifiers).
Note: ***Scanning and imaging requirements are essential and need to be included in this specification since Malaysian Judiciary including Malaysian Court of Appeal have managed hybrid records (both non-electronic records and electronic records).***	

5.0	**Retention and disposal** ***Description:*** 'Disposal' according to the Malaysian National Archives Act 2003 means the manner of managing the aggregation of records with a view to destruction, transfer or otherwise. Courts must ensure that all court records have to be disposed of upon maturity of their retention periods as specified in the Retention Schedule for Malaysian Judiciary (2010). Therefore, the system must be able to control the retention and disposal of records in accordance with disposal authorization and preservation strategies.
5.1	The system must support the controlled disposal of Court of Appeal records legally authorised for disposal in accordance with approved disposal authorities issued by the National Archives of Malaysia or in accordance with the Court of Appeal requirements.
Note: ***To be able to identify court records to be legally destroyed or retained permanently, the Malaysian Court of Appeal should refer to the Retention Schedule for Court Records developed by the National Archives of Malaysia (2010).***	
5.2	The system must allocate a unique identifier and unique record series to each retention and disposition schedule when they are created.
5.3	The system must display disposition type (i.e., type of judgment), including those involving entire cases, individual parties, cross-complaints, etc.
5.4	The system must automatically track the retention periods (refer to the Retention Schedule for Court Records developed by the National Archives of Malaysia) that have been allocated to all entities.
5.5	The system must maintain an unalterable history of changes and deletions (i.e., an audit trail) that are made to retention and disposition schedules, including the date of change or deletion, and the user making the change.
Note: ***Deletions or changes of retention and disposition schedules must be controlled carefully to reduce the risk of records being destroyed inappropriately.***	
5.6	The system must ensure that any amendment to a retention and disposition schedule is immediately applied to all entities to which the retention and disposition schedule is allocated.

5.7	When the retention period applicable to some record(s), because of a retention and disposition schedule, reaches its end, the system must automatically prompt users regarding the appropriate action (e.g., prepare notice of motion to dismiss, extend dates, etc.) or initiate the processing of the disposition decision.
5.8	Each retention and disposition schedule must include either: • a retention period or a disposition date; • a disposition action or a reason; or • a description or a mandate.
5.9	Preservation strategies 5.9.1 Whenever the system transfers or exports any record, it must transfer or export the content, structure and all its components and must preserve the correct relationships between them. 5.9.2 Whenever the system transfers or exports any class, file, sub-file or volume, the transfer or export must include: • (for classes) all files and records in the class; • (for files) all volumes and sub-files in the file; • all records in all these files, sub-files or volumes; • all or selected metadata associated with all of the above; and • all or selected audit trails for all of the above. 5.9.3 Whenever the system transfers information, it must be able to include a copy of the entire metadata and retain copies of all electronic records that have been transferred, at least until such time as a successful transfer is confirmed in the active/original environment. 5.9.4 Whenever the system exports or transfers information, it should be able to produce on request a report listing the records exported or transferred according to their security categories. 5.9.5 Whenever the system destroys records, the system must ensure that the destruction results in complete destruction so that the destroyed records cannot be restored through specialist data recovery procedures. 5.9.6 The system must support migration processes.
DISSEMINATION	
6.0	**Search and Retrieve** ***Description:*** The system must be able to retrieve electronic court records through a variety of search methods.

6.1	The system must allow users to search for and retrieve: 6.1.1 complete electronic court records and all their content and contextual metadata; 6.1.2 every level of aggregation of records (class, file, sub-file, volume) and their associated metadata at any level of the classification system; 6.1.3 a single aggregation or more than one aggregation; and 6.1.4 records directly through the use of a unique identifier.
6.2	The system must never allow a search retrieval function to reveal to a user any information (records management metadata or record content) that the access and security settings are intended to hide from user.
6.3	The system must present faultless functionality when searching and reporting non-electronic and hybrid aggregations.
6.4	The system must allow users to refine searches (e.g., a user should be able to start with the result list from a search and then initiate a further search within that list).
7.0	**Render** ***Description:*** The system must be able to render the results. The rendering process includes displaying records on screen, printing or outputting to appropriate media records that cannot be printed (e.g., audio files).
7.1	Rendering: displaying records 7.1.1 The system must never present information to any user who is not entitled to access it. 7.1.2 The system must be able to render all types of electronic court records specified by the Court (as listed in Note 1.1) in a manner that preserves the information in those records and that renders all components of those records in their original relationship. 7.1.3 The system must be able to render to a user a record's content and its metadata (subject to access controls) by a single click or keystroke.
7.2	Rendering: printing 7.2.1 The system must be able to print all, or specified, content and metadata for any class, file, sub-file, volume or record. 7.2.2 The system must be able to print the summary list of selected records (e.g., the content of the case). 7.2.3 The system must allow the authorised user to print the results list. 7.2.4 Printing must preserve the layout produced by the generating application package and include all (printable) components of the electronic records.
Note: ***However, the system must also be able to block the printing function for contents and metadata that are prohibited for printing.***	

7.3	Rendering: other 7.3.1 The system must include features for presenting and outputting to appropriate media records that cannot be printed. (e.g., from the Court Recording & Transcription System).
ADMINISTER	
8.0	**Administrator functions** ***Description:*** The requirements associated with managing system parameters, back-up and restoration, system management and user administration.
8.1	The system must be able to configure system in accordance with Court of Appeal. procedures and rules.
8.2	The system must be able to manage, retrieve, display and re-configure system parameters and to re-allocate users and functions between user roles.
8.3	The system must be able to make changes (e.g., alter the metadata of a record within the system and reporting conflicts in summary for individual resolution) and allow finalization/correction of the record profile. When the changes have been made, the system must automatically log this in the audit trail.
8.4	The system must be able to provide back-up facilities so that records and their records management metadata can be recreated using a combination of restored back-ups and metadata.
Note: ***Back-up must be performed daily, weekly, monthly and annually. Frequency depends on the levels of backing up critical information.***	
8.5	The system must be able to provide recovery procedures, update errors and notify the administrator of the results (e.g., allow administrators to 'undo' a series of transactions until a status of assured database integrity is reached).
8.6	The system must be able to communicate errors encountered in storing data and monitor available storage space and notify the administrator when action is needed because available space is at a low level or because it needs other administrative attention.
8.7	The system must allow administrative roles, and only administrative roles, to create and maintain retention and disposition schedules.
8.8	The system must be able to print all aggregations, metadata, records disposal schedules, classification scheme and audit trails.
8.9	The system must provide the appropriate administrators to have control of assignment and revocation of security levels and privileges.
9.0	**Metadata administration** ***Description:*** Metadata schemas have to be administered, including the creation, addition, deletion or alteration of metadata elements, and the semantic and syntactical rules and obligation status applied to those elements.
9.1	Allow the administrator to create, define, modify and delete metadata elements, including custom fields.

9.2	Allow the administrator to configure the system to restrict the viewing or modification of metadata elements by group, functional role or user.
9.3	Document all metadata administration activities.
9.4	Ensure all records management metadata and metadata data are handled correctly and completely at all times.
10.0	**Reporting functions** ***Description:*** The system must be able to report the caseload, case flow, and workload statistics and other court financial, operations and staff management information, either by the system itself or by an integrated or interfaced external records management mechanism, during a specified period of time (daily/monthly/annually).
10.1	Provide flexible reporting facilities for the administrator. They must include, at a minimum, the ability to report the following: 10.1.1 numbers of aggregations, volumes and records; and 10.1.2 transaction statistics for aggregations, volumes and records; and activity reports for individual users.
10.2	Allow the administrator to report on metadata based on selected: 10.2.1 aggregations, volumes and record objects; 10.2.2 users and user groups; 10.2.3 security categories; 10.2.4 other records management metadata. 10.2.5 time periods and time retention; and 10.2.6 file formats and instances of each format.
10.3	Be able to produce a report listing the details and outcome of all records functions processes.
10.4	Allow the administrator to request and find daily, monthly and yearly reports.
10.5	Allow the administrator to restrict users' access to selected reports.
10.6	Statistical report function: Provide access to statistical reports such as case load, closed cases, number of cases assigned per judge, case flow reports, retention period, number of pending cases at each proceeding stage, average time intervals between proceeding stages and workload statistics.
Note: ***The system must be able to send monthly reports to a Chief of Justice.***	

10.7	Management report function: Provide access to management reports, providing information on cases (e.g., compliance with rules of court and state statutes; summary information on case parties, filings and events; detailed information on case aspects, such as no action and as detailed in 10.2) and enable trend analysis (e.g., changing file formats in use).
COMPLIANCE	
11.1	Wherever relevant, the ERMS must comply with or support compliance with the following national policies and procedures: 11.1.1 National Archives of Malaysia • National Archives Act 2003 • Retention Schedule of Malaysian Judiciary 2010 11.1.2 The Malaysian Administrative Modernization & Management Planning Unit (MAMPU) • ICT Security Policy: MAMPU, 2009 11.1.3 Malaysian Judiciary (Court of Appeal) Rules of the Court of Appeal • Court of Appeal Practice Direction No 1, Year 2008 • Manual Prosedur Kerja: Kes-Kes Sivil di Mahkamah • ICT Security Policy Chief Registrar Office, Malaysian Federal Court, 2010 • Digital Signature Act 1997
11.2	All policies/procedures must be updated from time to time or according to the needs.