**TS Appendix A -**

**Correspondence Management Module Requirements**

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# Project Description

Develop a comprehensive system that maximizes the core requirements of Correspondence Management. This system should be compatible with various devices such as PCs, mobile devices, and handheld devices, allowing users to effectively register, track, exchange, circulate correspondence documents, oversee approval processes, and meticulously monitor document statuses and logs. The objective is to boost efficiency and optimize the flow of correspondence documents and business workflows through the integration of intelligent technology within the OA platform.

Currently, we have 9 document flows across company, details please refer to “Section 3.8: As-Is Document Flows”.

1. Inbound
   1. General Inbound (Letter)
   2. General Inbound (Email)
   3. DSPA Inbound (Letter)
   4. DSPA Inbound (Email)
   5. Confidential Inbound
2. Outbound
   1. General Outbound (Letter)
   2. DSPA Outbound (Letter)
   3. DSPA Outbound (Email)
   4. Confidential Outbound

## Functional Requirements

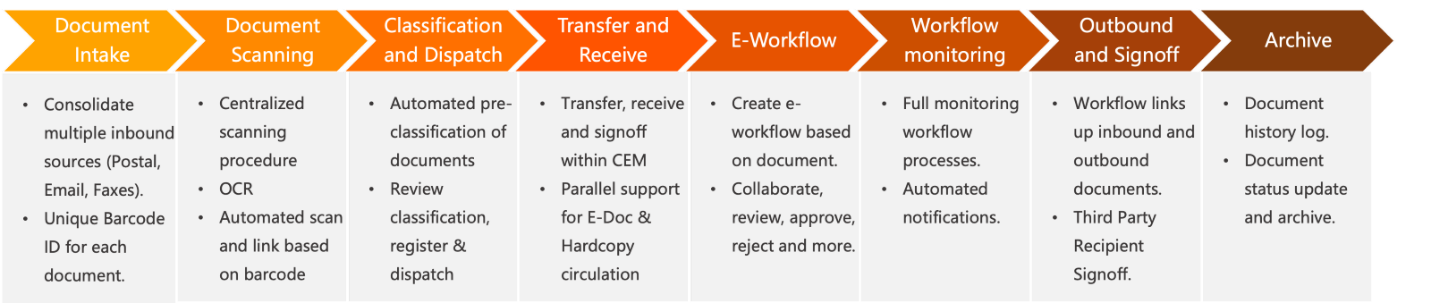
* Implementing a modern document management system with improved document upload, storage, retrieval, approval, version control, and search functionality.
* Automate document intake, full content extraction (OCR), indexing, classification and distribution by utilizing industry leading intelligent document processing (IDP) techniques and solutions.
* Digitalize physical documents, enable fully digitalized tracing of document circulation once document enters CEM, replacing current paper sign and receive practice.
* Integrate and manage all document flow processes into the new system.
* Enhancing collaboration features and workflow processes to optimize document sharing, document approval and editing processes.
* Implementing workflow automation to improve document approval processes and task management.
* Improve correlation between Inbound and Outbound documents.
* Enhance monitoring functionality to provide real-time status notifications for documents.

## Non-Functional Requirements

* The new document management system should be optimized for fast performance, ensuring quick response times for document scanned copy uploads, searches, and retrieval operations.
* Performance benchmarks should be established and monitored to ensure the system meets predefined performance criteria under varying loads.
* The system should be designed to scale efficiently to accommodate a growing volume of documents and users.
* The system should be compatible with a wide range of devices and browsers to support diverse user environments.
* Enhance the user interface for improved usability, shortened operational steps and user experience.

# Correspondence System Requirements

Below diagram shows an overview of future DMS portal main flow design across all Business Workflows, from document intake to the completion of the document lifecycle:



## Unified Portal / UI & UX

|  |  |
| --- | --- |
| D01-01 | Develop a DMS system portal frontend, fully utilizing DMS core requirements, supports PC and remote devices that allows users to facilitate document circulation, workflow processes, fully trace document status and transfer log. |
| D01-02 | Portal should be responsive layout in order to support mainstream desktop, tablet and phone sizes. |
| D01-03 | Usability and user friendliness:  The user interface should be intuitive and user-friendly, web portal optimized for desktop usage, handheld portal optimized for touch interactions on touch screens. |
| D01-04 | Avoid duplication selection from dropdown list. |
| D01-05 | Enable preview feature for attached documents at any item list and workflow process. |

## User Authentication

Users should be able to log in securely with their credentials to access the DMS portal, capability provided by below features.

### Users and Permissions Management

|  |  |
| --- | --- |
| D02-01 | The system should integrate with the corporate Windows LDAP login system to manage user authentication and authorization based on industry-leading best practices. |
| D02-02 | Support single sign-on (SSO) functionality to allow users to seamlessly access the system using their corporate Windows credentials without the need for separate login credentials. |
| D02-03 | Implement role-based and time-based access control to assign permissions to users based on their roles within the organization. Ensure that permissions are granular and align with the principle of least privilege. |
| D02-04 | Implement secure protocols and encryption standards to protect user authentication data during transmission and storage. |
| D02-05 | Provide an intuitive user interface for administrators to manage user permissions, roles, and access rights efficiently. |
| D02-06 | Enable administrators to easily define and configure access control policies, including access levels, resource permissions, and restrictions based on organizational requirements. |
| D02-07 | Implement auditing and logging mechanisms to track user activities, permission changes, and access attempts for security and compliance purposes. |
| D02-08 | Ensure that the permission management system is scalable and can accommodate a growing number of users and resources without compromising performance or security. |
| D02-09 | Third party API account management (inc. Third party usage within CEM & out of CEM):   1. Third party recipient configuration and management. 2. API account management, allow CEM user to generate unique API keys (client & secret) for designated third party recipient for API authentication. 3. Secure API endpoints with authorization mechanisms, enforce API access and Data access restriction. |
| D02-10 | Temporarily Permission  Users can also freely fill in the sharing time range and notes on demand and generate a direct URL to share. After the time is over, the sharing will automatically expire. The shared documents can be viewed in the sharing list, and the invited users can download or view the documents. |
| D02-11 | If user permissions are based on role-based design, there should be no impact on the permissions due to changes in the organization structure. However, if permissions are tied to specific organizational hierarchy, they should automatically take effect after any reorganization. |

### Users and Permissions Delegation

|  |  |
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| D02-12 | Enable users with appropriate authority to delegate permissions to other users temporarily for specific tasks or periods. |
| D02-13 | User impersonation, upon granting permission with the ability to impersonate other users for specific tasks or periods, e.g. Secretary impersonating EC, Audit department impersonating administrator read-only for accessing all files and audit trails records. |
| D02-14 | Provide audit trails and logs to track permissions delegation and impersonation activities for accountability and security purposes. |

### Organizational Structure Management

|  |  |
| --- | --- |
| D02-15 | The organizational chart should synchronize from ERP system HR module which contains multiple organizational units, which can be set up as a tree-like hierarchical relationship. Each organizational unit can be set up with a role, so that when setting up document processes, they can flow by organizational unit or by role. |
| D02-16 | System should support extension of organizational charts for different document processes, so that the document process can flow in various organizational units of the organizational chart. |
| D02-17 | The system design should cater organization hierarchy changes, departments merging or splitting or renaming, system should provide a solution either to maintain or transit the permission ownership. The system should provide batch update features to modify document’s permissions and owner information. |

## Dashboard and Reporting

|  |  |
| --- | --- |
| D03-01 | Display a dashboard with an overview of recent activities, pending tasks, and quick access to frequently used functionalities or documents. |
| D03-02 | Dashboard should also display useful metrics, such as document counts, pending tasks counts, deadlines, notification bubbles, KPI, etc. |
| D03-03 | 1. The data content on the Dashboard will dynamically adjust based on the logged-in user's department and role. Except authorization user who can view full set of data. 2. Report layout and item can be customized by user upon request. |
| D03-04 | Live generate reports or export the data on request, filtering by report parameters, i.e. document type, department, document status, document classification, channels, date, etc.   1. Document Information:  * List the document full attributes information. * Enable to associate the document relationship.  1. Document Routing History:    * List the specific documents routing history information. 2. Document Status Report 3. Document Archive Information |
| D03-05 | Role and Permission Report |
| D03-06 | User Account Report |
| D03-07 | User Delegation Report |
| D03-08 | Workflow Progress Report |

## Notification Center

|  |  |
| --- | --- |
| D04-01 | User could view all DMS notifications in notification center, which notifications are sent via workflow or manually sent by user. |
| D04-02 | Notification content should support hyperlink to directly redirect to designated page. |
| D04-03 | The system should support various types of notifications, including system-generated automated notifications and manually triggered notifications by users.  Notification Channels:   1. SMS 2. Email 3. DMS notification center 4. WeCom |
| D04-04 | The system should be able to automatically generate notifications based on predefined triggers, such as document approval status, upcoming deadlines, or task assignments.  Automated notifications should be customizable to include relevant information and recipients. |
| D04-05 | Automated Notifications includes but not limited to below triggering scenarios:   1. Document Workflow/Progress Updates (transfer un-transfer, receive, un-receive, etc.) 2. Document Approval Status (Pending, approved, rejected, cancelled, etc.) 3. Deadline Reminders, deadline should be configurable by document types, document workflow or manually inputted. 4. Document changes (Edit, comments, version updates, sharing, etc.) 5. Task Assignments (Scanning task, Transfer task, Approval task, etc.) 6. System Maintenance Alerts (for Operations) |
| D04-06 | Users should have the ability to manually send notifications to specific individuals, groups, or roles, and add custom messages and attachments if needed within the system. |
| D04-07 | Message templates configurability for different notifications channels. |

## Search

|  |  |
| --- | --- |
| D05-01 | Document Quick Search:  Include a robust search UI/UX that allows users to perform a quick search for documents based on subject, document number, scan barcode throughout document management processes. |
| D05-02 | Document Advanced Search:  Advanced search extends the range of searching criteria based on document information, including but not limited to document type, date range, sender, creator, tags, or custom metadata fields.  Enhanced search functionality leveraging the following capabilities:   1. Keyword Search  * Combining search based on specific terms or phrases contained within document metadata, content, subject.  1. Full-Text Search  * Subject to OCR functionalities, enable full-text search functionality by indexing entire content of available documents, including text within scanned images or PDF files.  1. Wildcard Search  * Allow user to use wildcard characters (\*) in search queries to find documents based on partial matches. |
| D05-03 | Search results should be displayed in a user-friendly format with export data options, sorting and filtering. |
| D05-04 | Search results should be displayed according to the user permission. |
| D05-05 | All documents content including scanned letters, email, fax and attachments must be Optical Character Recognition (OCR) in order to perform full text search. |
| D05-06 | Supports multiple languages: Chinese, Portuguese, and English. |
| D05-07 | Enables intelligent search functionality in the future, including the ability to perform phrase searches, fuzzy searches, wildcard searches, and proximity searches. |

## Inbound Document Intake / Barcode Creation

### 2.6.1 Document Intake Process

|  |  |
| --- | --- |
| D06-01 | The system should support the intake of three main types of documents: paper letters, fax and emails with attachments.   1. For paper letters: 2. The system should generate a unique ID upon intake. Unique ID should be able to be represented in Barcode format. 3. The barcode will be printed as sticker and will be used to mark and trace the circulation of the hardcopy document within the company. 4. Handheld devices for the ease of registering and signoff procedures during the hardcopy circulation to each recipient. 5. For Fax and Emails with attachments: 6. The system should be able to automatically monitor Email Channel and Fax Channel incoming letters. 7. The system creates correspondence document record in the system providing unique ID. 8. The extracted attachments should be appropriately categorized and stored under corresponding document. 9. Fax and Email document intake should be automated to reduce manual entry and streamline the intake process, and routing to pending center for appropriate users to further process. |
| D06-02 | The system should have the capability to process and intake documents in various formats, ensuring compatibility with common file types. |
| D06-03 | The system should maintain a log of all document intakes, including details such as date, time, source, document type, and any associated metadata. |
| D06-04 | Ensure that the document intake process is secure and compliant with data protection regulations to safeguard sensitive information. |
| D06-05 | The system should provide search and retrieval functionalities to easily locate, and access stored documents based on specific criteria. |
| D06-06 | Regular audits and monitoring mechanisms should be in place to ensure the accuracy and completeness of the document intake process. |
| D06-07 | The system should be scalable to accommodate a growing volume of document intake, additional document channels and processing adjustment needs in the future. |

### 2.6.2 Barcode Creation

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| --- | --- |
| D06-08 | System should provide a simple to use UI, for user to create single or batch barcode unique ID, with barcode label printing feature when CEM receives hardcopy letters, barcode ID should be globally unique within CEM. |
| D06-09 | Barcodes should be associated with metadata or information related to the paper document, such as document title, date of creation, author, and any other relevant details.  System should also provide fields for letter subject, description, tags or any other relevant metadata entering before barcode printing for preliminary document registration. |
| D06-10 | All intake documents should be routed to To-do Pending Center for next step. Corresponding notification will be sent to responsible party. |
| D06-11 | Integration with barcode printer and scanner to ensure the barcode is easily printable and scannable, ensuring efficient and accurate identification of paper documents during circulation. |
| D06-12 | The barcode will be printed as sticker and will be used to mark and trace the circulation of the hardcopy document. |
| D06-13 | Barcode should be small yet easily identifiable as CEM’s document code with unique prefix and/or logo. |
| D06-14 | System should provide handy features enabling users to quickly retrieve the record of the paper documents by scanning the barcode during circulation, to confirm receive, transfer and perform corresponding actions. |
| D06-15 | The system should maintain a log of barcode assignments and document interactions for audit and tracking purposes. |
| D06-16 | Enable barcode printing functionality within the system to easily generate and affix barcodes to paper documents during the intake process. |

### 2.6.3 Barcode Printing

|  |  |
| --- | --- |
| D06-17 | Implement functionality to manage print jobs from the system to the barcode printing hardware. |
| D06-18 | Allow users to select documents, generate barcode labels, and send print jobs to the barcode printing hardware directly from the system interface. |
| D06-19 | Security and Access Control:   * 1. Ensure that access to barcode printing functionality within the DMS is restricted to authorized users.   2. Implement security measures to protect sensitive document data and prevent unauthorized access to the barcode printing features. |
| D06-20 | Re-printing counts should be recorded in the system. |

### 2.6.4 Barcode Scanning

|  |  |
| --- | --- |
| D06-21 | Scanner Compatibility and Connectivity:   1. Ensure compatibility between the barcode scanner hardware and the System in terms of connectivity (e.g., USB) and communication protocols. 2. Establish seamless integration to enable the scanner to interact with the system for document tracking and identification. |
| D06-22 | Scanner Configuration and Setup:   1. Provide clear instructions for configuring and setting up the barcode scanner to work with the system. 2. Define scanner settings, scanning modes, and data transmission parameters to ensure accurate and efficient scanning operations within the system. |
| D06-23 | Barcode Data Capture and Parsing:   1. Implement functionality in the system to capture and utilize scanned barcode data from the barcode scanner in all related function modules. 2. Parse and interpret barcode data to extract relevant information for document identification, search, retrieval, and tracking actions within the system. |

## Inbound Document Processing

Once intake document has been routed to To-do pending center, user need to pick up their responsible documents to proceed following steps:

* Document Registration & Translation
* Scanning & Pre-processing
* Dispatching

### 2.7.1 Document Registration & Translation

|  |  |
| --- | --- |
| D07-01 | Allow user to review and evaluate the document content and determine if the translation is necessary. |
| D07-02 | Enable to submit the translation back to corresponding document number as attached if it is provided by user outside from the system or providing by the system if it is ready for automated translation functionality. |
| D07-03 | Generate CEM Inbound document number (so called DMS number) via the system, and then user will chop the DMS number on the paper document before scanning. |

### 2.7.2 Scanning & Pre-processing

|  |  |
| --- | --- |
| D07-04 | Paper Document Scanning:  System should highly be integrated with scanning hardware to minimize manual intervention for each scan tasks fulfilling below requirements.   1. The scanning center should be capable of high-speed scanner to efficiently process bulk amounts of paper documents, post editing features for each scanned documents including but not limited to: Image enhancement, decked and cropping, blank page auto removal, page ordering, page insertion, page editing, auto orientation, etc. 2. Eliminating the need to re-scan the whole document while encountering a problematic page, replace on-the-go with a corrected version. 3. Auto separate a single document by identifying the barcode unique ID. 4. Scanner hardware should support at least A4 and A3 size, and software features should not be limited by page sizing. 5. After scanning process, document will be transferred to pre-processing stage automatically. |
| D07-05 | Non-Paper Document:  Documents from digital channels (i.e. Email and fax) should be routed directly to pre-processing stage. |
| D07-06 | Data Extraction and Indexing:   1. The scanning software should be able to extract relevant data from both scanned letters and digital incomings, such as sender information, date received, barcode present on the document and any other necessary details. 2. It should provide indexing capabilities to categorize and organize the scanned letters based on predefined criteria. |
| D07-07 | Classification Automation:  By identifying Documents extracted metadata/indexing information, document classification should be automated to improve efficiency and accuracy in categorizing documents to fulfil below objectives:   1. Automatically proceed the document to predefined workflow. 2. Pre-fill required fields upon operations by operators, minimize operator’s actions. (e.g. document metadata, document type, transfer to department, etc.) |
| D07-08 | By confirming documents extracted metadata/indexing information, system should correlate scanned document with the corresponding DMS record, which to be automatically update document attributes and/or upload scanned document after confirmed. |
| D07-09 | Also enable the scanned document to be automatically uploaded to the system from Multi-functional Printer. |
| D07-10 | Batch upload of documents: By scanning or manual upload  The system will automatically match the uploaded document with the existing documents according to the document code. For example, if the document code is 123, 123.pdf will be uploaded as the main document, and 123\_1.pdf, 123\_2.pdf, as attachments, and so on. |
| D07-11 | System should allow user to maintain the document classification matrix for timely updates. |

### 2.7.3 Dispatching

|  |  |
| --- | --- |
| D07-12 | Centralized document hub consolidating all inbound documents after pre-processing.  Upon pre-defined classification, the document record should be auto transferred to the destination. Document hardcopy should be allocated to out tray for messenger delivery after pre-processing. |
| D07-13 | Distribution (in collaboration with Messenger)   1. Document record should be transferred promptly to the recipient, parallelly, document hardcopy pending for transfer should be routed to messenger, pending for dispatch. |
| D07-14 | Tracking and Monitoring   1. Provide full tracing functionality for tracing and monitoring hardcopy transfer progress. |
| D07-15 | Alert of Delivery   1. Provide alert/notification feature to the receiver. |
| D07-16 | Proof of Delivery   1. Acknowledge receive by signing or pressing a button via handheld device. 2. Provide confirm receive footprint upon hardcopy receive by recipient. 3. Sync up the delivery information to the system. |
| D07-17 | Performance Metrics and Reporting features regarding to dispatching. |

## Document Transfer

|  |  |
| --- | --- |
| D08-01 | Support for handling three types of transfers is enabled, with the option for combined types:   1. e-Doc / Softcopy 2. Original Copy 3. Carbon Copy / Photocopy |
| D08-02 | Transfer feature for department users:   * Transfer document to a user, department or user group. * System should utilize document barcode to minimize user inputs. * After initiating a transfer, document type with original copy should be placed in origin department’s out tray, pending for messenger to pick up.  1. After initiating a transfer, if the document was wrong transferred, support recall feature. 2. System should be able to classify transfer types. 3. System should support document transferring to multiple departments different organization level, with granularity down to user level, i.e. department level, sub department level, user level. |
| D08-03 | System should support Document transfer records with details for each type separately. |

## Document Receive

|  |  |
| --- | --- |
| D09-01 | Full list of Documents pending to receive will be listed in this view, with receive functionalities utilizing hardcopy barcode. |
| D09-02 | Receive document type: e-Doc / softcopy.   1. Users may open the e-Doc for auto receiving the document and create document workflow from the same view. 2. Users can manually confirm the receiving of document. |
| D09-03 | Receive document type: Original Copy / Carbon Copy.   1. Users may scan the barcode on the hardcopy / Carbon Copy for receiving the hardcopy/carbon copy. 2. Users may scan multiple documents and confirm in a batch. |
| D09-04 | System should support document receiving records with details for each document type, i.e. user may receive e-Doc first, without waiting for the hardcopy. And the system should support record of the receiving the hardcopy/carbon copy after receiving e-Doc. |

## Document Workflow Process

|  |  |
| --- | --- |
| D10-01 | User may initiate a workflow process based on the inbound document classification. |
| D10-02 | E-workflow processes could be monitored in Document workflow process center by authorized users and groups, users are able to collaborate and work on the same document performing workflow or document processes actions. |
| D10-03 | User may create outbound document on demand, if workflow process is created based on inbound document, outbound document should automatically build linkage with inbound document. |
| D10-04 | The document linkage can also be established on demand manually. |
| D10-05 | System should determine outbound sequence number based on document type, document classification during approval workflow, and should support creating outbound documents by batch. |
| D10-06 | Batch creation of DMS document number, in use cases of bulk sending outbound documents. |
| D10-07 | Batch outbound number creation, suggested to support excel import for outbound document creation for metadata input. |
| D10-08 | Adopt online approval with e-signature, integration with Exchange to generate the reply to receiver. |
| D10-09 | Allow user to download document template on request from the system or the system initiate the document based on the workflow process. |
| D10-10 | User should have an overview on all workflows:   1. Pending /On going Workflows 2. Workflow Details 3. Workflow Archived |
| D10-11 | Allow the workflow restart and continue the incomplete stage/status due to the workflow was stopped or failed. |
| D10-12 | General Workflow features:   1. Next Step/Return in Process:  * Allow users to return processes to previous stages or steps if revisions or corrections are necessary.  1. Process Cancel/Complete:  * Allow authorized users to cancel or terminate document processes that are no longer needed or have become obsolete. * Provide options to mark processes as complete once all required tasks and approvals have been successfully executed.  1. Bulk Assignments:  * Enable batch assignment of tasks, approvals, or reviews to multiple users or groups within document processes.  1. Parallel Processing:  * Support parallel processing of multiple document processes simultaneously to expedite workflow execution and improve overall efficiency.  1. Batch Review and Approval:  * Provide a consolidated view for reviewers or approvers to assess and approve or reject multiple document processes in a batch mode. |
| D10-13 | System should be able to determine the appropriate/authorized approver or signer during the workflow process. |

## System Configuration

|  |  |
| --- | --- |
| D11-01 | Allow administrators to configure system general settings, e.g. schedule task, notification channel, maintain or reset document sequence, maintain document type, maintain attribute dropdown values, etc. |
| D11-02 | Provide configuration to customize document templates, notification templates, workflow rules and workflow templates (i.e. free flow & fixed flow), configure integration with other systems. |
| D11-03 | Allow administrators to manage user role, permissions, and access controls. |

## Messenger Features

|  |  |
| --- | --- |
| D12-01 | Provide real-time information on Messenger Dashboard:   1. Pickup and Delivery Status. 2. Timers and alerts to help manage pickup and delivery timeframes. 3. Dashboard for upcoming pickup or delivery tasks. |
| D12-02 | Document Pick-up Functionality (Messenger Pickup Document):   1. Messenger picking up documents regularly from departmental documents “Out Tray”, documents pending for transfer should be prepared in advance by the sender, messenger with handheld device could scan the “tray code”, and pick-up documents by batch. 2. By scanning tray code, messenger is deemed to pick up the whole batch of “pending dispatch” documents. 3. “Tray code” scanning feature is not a mandatory step of the transfer / receive workflow and could be replaced by suitable solution on actual operation. |
| D12-03 | Document Sign-Off Functionality (Recipients Confirm Receive):   1. Implement a sign-off request feature that enables messengers to request confirmation or approval from recipients upon document receipt, hence provide instance feedback on successful deliveries. 2. Allow recipients to acknowledge document receipt through messenger handheld device, provide electronic signatures (Sign by hand), or mark documents as received. 3. Receive on behalf feature, during receival, messenger will have permission to record recipient down to person (with Staff number, Username, or other suitable identifiers) while obtaining the recipient signoff. 4. The Sign-off feature is applicable to both internal and external recipients. |
| D12-04 | Only corresponding task will be shown on the handheld device which are assigned to the delegated messenger. |

## Document Management

### Document Tracking

|  |  |
| --- | --- |
| D13-01 | Provide tracking information of document movements from pickup to delivery, and follow up status, with timestamps for each stage of the process. |
| D13-02 | Enable features to scan barcodes on documents for easy tracking and logging. |

### Audit Logs

|  |  |
| --- | --- |
| D13-03 | Maintain a comprehensive audit trail within the messaging application to track document transfers, recipient sign-offs, recipient responses, etc. |
| D13-04 | Enable users to view the complete history of document transfer interactions, timestamps, user actions, and comments for transparency and accountability. |

### Document Status

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| D13-05 | The system should provide a document status for each document identifying each document status within its lifecycle, indicating its progress, current state, and actions required.  Document status should include but not limited to below status, and status should be configurable within the system:       |  |  |  | | --- | --- | --- | | **Documents Inbound** | | | | 1 | Pending Registration | Documents entered CEM, created DMS record, but have not assigned DMS number. | | 2 | Document Registration | Translation and assign DMS number | | 3 | Document Scanned | Document scan copy linked to DMS record. | | 4 | Pre-Processing | Pre-processing stage includes OCR recognition and metadata extraction, happened after document scanning. | | 5 | Pending Dispatch | Documents scanned, pending for confirmation on the auto-extracted metadata and DMS number assignment, then dispatch transfer to designated department. | | 6 | Pending Receive | Document being transferred and pending recipient receive. | | 7 | Awaiting Verification | Document waiting for verification. | | 8 | Preparing for Reply | Document initiated an internal workflow, pending for internal processing and reply. | | 9 | Archived | Documents archived. | | 10 | Disposed | Documents deleted and pending for retention period until being permanently deleted. |        |  |  |  | | --- | --- | --- | | **Documents Outbound** | | | | 1 | Draft | Initiated an internal workflow and pending for reply draft. | | 2 | Under Review | Draft circulated to responsible party(s) for review and comments. | | 3 | Pending Approval | Draft finalized and pending for approval. | | 4 | Approved | Reply document approved and pending for send out. | | 5 | Rejected | Reply document rejected and pending for revise. | | 6 | Outgoing Delivery | Document picked up by messenger. | | 7 | Awaiting for Signing | Document required signature being sent out. | | 8 | Received by External | 1. Document sent.  2. Document required signature being signed. | | 9 | Archived | Outbound Document completed and archived. | |

### Document Types

|  |  |
| --- | --- |
| D13-06 | The system should support configurable file type codes, mapping document types to a unique shorthand code and mapping predefined receiver (Refer section 3.10).  File type codes should integrate with document metadata, enabling searching.  e.g. Letter = LET, Memo = MMO, etc. |

### Version Control

|  |  |
| --- | --- |
| D13-07 | Versioning Control should be applied on document updates, attachment uploads and attributes updates, etc. |
| D13-08 | The system automatically records every modification and operation log of the document. It provides a complete version control function. Users can view historical versions at any time and easily trace back to any time point, effectively avoiding version conflicts and data loss. |
| D13-09 | Each time users upload a document or edit it online; the system will generate a version. Users can manage all versions and switch to a specific version. |

### Confidentiality

|  |  |
| --- | --- |
| D13-10 | Users can set detailed confidentiality scope for document types or documents. |
| D13-11 | Supports setting up specific confidential users groups, where users can access document contents within their authorized confidentiality scope. Through a strict permission control mechanism, it ensures that only authorized individuals can access sensitive information, further strengthening data security. |

### Others

|  |  |
| --- | --- |
| D13-13 | Document attributes and metadata:  After setting the relevant permissions, users can view and edit documents’ metadata. They can edit the standard and custom properties of documents, modify the document classification, and readjust the new custom properties. |
| D13-14 | Document Associations:  Users can associate files or process documents, and also can view the current document’s Association records. |
| D13-15 | Download/Batch Download:  The documents are divided into one main document and multiple attachments. Users can download the documents individually or in batches. |
| D13-16 | Online Browsing:  For Word, Excel and other text types of documents, users can browse/edit online. PDF Documents can be browsed and view online directly on the browser, without /downloading documents. |
| D13-17 | Watermark:  Watermarking should be applied to documents to deter unauthorized sharing or distribution. The system must support watermarks with sufficient user information and identifiers that can be embedded in documents, for example: Staff number and Staff Name. Watermarks should be persistent and tamper-proof, ensuring that any unauthorized copies can be traced back to the original source.  Also allow to include the watermark in the print-out and publishing document. |
| D13-18 | Update Master Document:  For Word Documents, if Document attribute variables are set in the Document, it supports updating the Document's standard attributes or custom attributes to the master Document and creating a new version. |
| D13-19 | Delete/Permanently delete:  After deleting a document, it will be moved to the Recycle Bin of the workspace, where users can restore the Document. Users can also delete the document permanently (the system should have a retention for permanent deletion), but the deleted document cannot be recovered. |
| D13-20 | Annotation Features:  Markups allow you to annotate documents without altering the document content itself. All annotation entities are saved with the associated document and can be viewed by other users, depending on the set permissions. |
| D13-21 | Redaction Features:  Allows users to create annotation entities for the purpose of redaction. These entities are placed over areas of sensitive or confidential information to block the covered area from being viewed, copied, or searched after the document is published as a redacted rendition (as a PDF or TIFF output file). |

## Integration

|  |  |
| --- | --- |
| D14-01 | Integrating the new document management system with existing corporate systems, i.e. OceanFax System and email platforms. |
| D14-02 | Establishing the connection to make use of WeCom as mobility portal, channel to exchange data, and respond workflow task. |
| D14-03 | Establishing APIs future for seamless data exchange with third-party applications used within the organization, i.e. CCS, SAP. |
| D14-04 | Establishing APIs future proofing seamless data exchange with external third-party applications. i.e. 澳門特區政府公文交換系統. |
| D14-05 | Adopt using E-Sign Trust upon approval in future. |

## Data Migration

|  |  |
| --- | --- |
| D15-01 | Migrating data (including metadata and documents) from the legacy document management system to the new system while ensuring data integrity and accuracy. |
| D15-02 | Implementing data cleansing and validation processes to ensure data migration quality to the new system. |
| D15-03 | Migrating offline data stores and flat files related to document management (Excel, MS Access, SharePoint, Network drive (NAS)), and perform data conversion and migration to the new system. |

## Implementation and Deployment

|  |  |
| --- | --- |
| D16-01 | Developing and executing a detailed implementation solution for deploying the new system across all departments. |
| D16-02 | Providing comprehensive knowledge transfer sessions for end-users to ensure a smooth transition to the new document management system. |
| D16-03 | Conducting thorough testing to validate the system's functionality and performance before full deployment. |

## Disaster Recovery

|  |  |
| --- | --- |
| D17-01 | The system should be highly reliable, with minimal downtime and robust error handling mechanisms with automated notification for service outage. |
| D17-02 | Data integrity and consistency should be maintained across all devices to prevent data loss or corruption. |
| D17-03 | Regular system backups and failover mechanisms should be implemented to ensure data availability in case of system failures. |

## Security and Compliance

|  |  |
| --- | --- |
| D18-01 | Implement robust security measures such as role-based access control, encryption to protect sensitive documents. |
| D18-02 | Data encryption, access controls, and data anonymization techniques should be implemented to protect sensitive information. |
| D18-03 | The system should support configurable (and can be disable) automated archiving and deletion processes to manage document lifecycle and retention periods. |
| D18-04 | Ensure all proposed implementation solutions meet relevant CEM legal and industry standards. Enable detailed audit trails to track document access, modifications, and user activities within the system. |
| D18-05 | Maintain comprehensive logs of user actions for accountability and compliance purposes. |

## Other Requirements

|  |  |
| --- | --- |
| D19-01 | Performance:  The new document management system should be optimized for fast performance, ensuring quick response times for document scanned copy uploads, searches, and retrieval operations. |
| D19-02 | Scalability:  The system should be able to handle a growing number of users, documents, and concurrent operations on all remote devices.  Scalability features should ensure that the system can accommodate increased usage without compromising performance. |
| D19-03 | The system should fully support common file types, but not limit to:    Documents:   * 1. .doc, .docx   2. .txt   3. .rtf   4. .pdf   5. .xls, .xlsx   6. .csv   7. .ppt, .pptx     Images:   1. .jpg, .jpeg 2. .png 3. .gif 4. .tiff 5. .bmp     Audio and Video files:   1. .mp3 2. .wav 3. .mp4 4. .Avi 5. .mov     Email Messages:   1. EML (Email Message) 2. MSG (Outlook Email Message)     Web Pages:   1. .html, .htm   GIS file format:   1. .dwg, .gml, .xsd, .cpg, .dbf, .sbn, .sbx, .shp and .shx |
| D19-04 | Provide support and material for revision of corporate instructions listed in Section 3.9 upon new system is on board. |

## Hardware Requirement

The hardware cost should consist of hardware devices/materials, including 3-years maintenance costs.

Please fill up and return the “CEM Green Compliance” document.

The quantities mentioned below will be finalized based on the actual requirements during the design phase.

|  |  |  |
| --- | --- | --- |
|  | **Technical Parameters and Minimum Specification Requirements** | **Quantity** |
| D20-01 | Barcode Printer and Label   * Printing method: Thermal (1 - year durability) / Thermal transfer (long - lasting) printing. * Maximum printable resolution: Not less than 203/300/600DPI. * Maximum width of printable media: Not less than 25/40/80/106mm. * Automatic cutter / peeling after printing. * Communication interface types: USB / USB + WI - FI or network port or Bluetooth, supports network-shared printing. * Print character set (if printing text): Traditional Chinese, Portuguese and other multilingual output characters. * Compatible systems: Windows, Android, Mac OS, Linux | 4 units  (1 x Reception, 1 x SCG, 1 X RACC, 1 x spare) |
| D20-02 | Barcode Scanner   * Scanning method: Handheld / Fixed / Self – inductive. * Scanning light source: Laser (expensive, high precision) / LED light (inexpensive). * External power supply: Can be used without power connection when equipped with battery. * Scan and store barcodes offline. * Communication interface types: USB / USB + WI - FI or network port or Bluetooth. * Scan barcodes on documents, labels, electronic screens, reflective media, etc. * Can decode mainstream and commonly used 1D/2D barcode formats. * Compatible systems: Windows, Android, Mac OS, Linux. * Can read barcodes at different angles. | 27 units  (20 x department sec, 2 x EC sec, 1 x Scanning Center, 2 x SCG, 2 x spare) |
| D20-03 | Handheld Device   * Scanning method: Handheld. * Data collection: Supports reading of 1D/2D barcode. * Display screen: Not less than 6.5 inches. * Touch screen: Capacitive touch screen, compatible with stylus. * Operating system: Android/Windows * CPU: Not less than octa-core 1.8Ghz * Memory: Not less than 4GB RAM / 64GB flash memory * Wireless communication: Supports dual-band WIFI * Supports secondary development * Compatible systems: Windows, Android, Mac OS, Linux * Support content writing by hand or with a stylus, and recognize multiple languages (Traditional Chinese, English, Portuguese). * Camera needs to recognize 1D/2D barcodes. | 7 units  (3 x SCG, 3 x drivers, 1 x spare) |

## Intelligent Requirement

These items are considered extension requirements and their inclusion in the project scope will depend on the project schedule and available resources. The tenderer is required to provide a separate price breakdown for each requirement, including a detailed description of the associated costs.

|  |  |
| --- | --- |
| D21-01 | Automated Translation   * Integrate automated translation solution in document pre-processing in order to efficient the workflow. * The solution should provide automated translation capabilities for at least Chinese/English/Portuguese. * The system should have a high level of accuracy in translation with minimal errors. * The solution should offer customization options for industry-specific terminology. * Compliance with data privacy and security regulations is mandatory. * Regular updates and maintenance support should be included. |
| D21-02 | Automated Data Capture and Manipulation   * The system should have the ability to automatically capture data from at least these sources, e.g., documents, emails. * Integrated the solution during document scanning and assign the corresponding value to metadata field. |
| D21-03 | Smart Search   * The search solution should provide intuitive and relevant search results based on user queries. * It must support natural language processing for better search accuracy. * Features like autocomplete, spell check, and faceted search should be included. * The system should be able to index and search across whole platform. * Integration with analytics tools to track search performance and user behavior. * The search solution should be scalable to accommodate future growth and increased data volumes. |

# Overview of Existing System

Existing system is an in-house developed Document Management System (DMS) by .Net designed to manage both internal and external document circulation. This system primarily provides document registration, tracking, and limited searching features for inbound and outbound Paper Letters (normal/confidential), Email, and Fax. Consist of 2 user facing interfaces, PC Client and Web Client, digital copy of the documents are stored in OpenText (Content Server ver.24.2) also act as an archiving server.

## Document Records Overview

**Total inbound document counts: 600,000+**

**Document distribution counts (previous 5 years):**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | 2024 | 2023 | 2022 | 2021 | 2020 |
|  | No. of files | No. of files | No. of files | No. of files | No. of files |
| Inbound | 13330 | 12463 | 10848 | 11997 | 14602 |
| Outbound | 17054 | 17091 | 15651 | 17612 | 20781 |

## Document Sequence

|  |  |
| --- | --- |
| **Document Type** | **Description** |
| Inbound | Inbound numbering sequence, manually created by PLD, naming convention is pure numeric incremental of 1 for each document record.  Code Pattern:  600000LET - <InboundSequence><DocType> |
| Inbound | Inbound numbering sequence only for confidential inbound letters, obtained and maintained manually by RACC colleagues with CFI account, sequence reset each year.  Code Pattern:  000001/24/CFI/LETI - <InboundConfidentialSequence>/<Year>/CFI/<DocType> |
| Outbound | Outbound numbering sequence, obtained by department office with GE account. Letters signed by department director will use GE outbound numbering, sequence reset each year.  Code Pattern:  000024/25/GE/LETI - <OutboundGESequence>/<Year>/GE/<DocType> |
| Outbound | Outbound numbering sequence, obtained only by Executive Office (EC) with CE account. Letters signed by EC will use CE outbound numbering, sequence reset each year.  Code Pattern:  000001/25/CE/LETI - <OutboundCESequence>/<Year>/CE/<DocType> |
| Outbound | Outbound numbering sequence only for confidential outbound letters, obtained and maintained manually by RACC colleagues with CF account, sequence reset each year.  Code Pattern:  000001/24/CF/LETI - <OutboundConfidentialSequence>/<Year>/CF/<DocType> |
| Outbound | Outbound external numbering sequence, obtained by departments for documents outgoing to external parties, numbering sequence is shared by department, reset manually each year. Naming convention suffix with department code and letter type code, sequence reset each year.  Code Pattern:  000001/25/CSD/MBM/LET - <OutboundSequence>/<Year>/<DepartmentCode>/<DocType> |
| Internal | Outbound internal numbering sequence, obtained by departments, numbering sequence is independent by department, reset manually each year. Naming convention suffix with department code and letter type code, sequence reset each year.  Code Pattern:  000001/23/ISD/LETI - <InternalDepartmentSequence>/<Year>/<DepartmentCode>/<DocType> |

## Business Roles

Current identified business roles after holding various workshops and meetings, interviewing current workflow and user roles. Future System should support but not limited to below roles.

|  |  |  |  |
| --- | --- | --- | --- |
| **#** | **Department** | **Role** | **Description** |
| 1 | CSD | Front desk | Front desk receives letters by hand, located in G/F CEM building. |
| 2 | PLD | Messenger | Messenger responsible for documents(letters) distribution throughout CEM building and outgoing documents to external parties. |
| 3 | PLD (SCG) | Letter sorter | Letters, Faxes, Emails inbound will first route to letter sorted for preliminary sorting and redispatch:   1. Predefined document types, directly to translation procedure and scanning centre, then direct dispatch to department. 2. Undefined document types, send to Executive office for review and redispatch. 3. Letters from DSPA, skip all processes directly dispatch to RACC. |
| 4 | ISD | Scanning Center | Scan each of the cover letter and correspondence attachments, link with DMS record and upload to OpenText accordingly. |
| 5 | RACC | DSPA Letter Manager | Redispatch, monitor and consolidate replies regarding to inbound letters from DSPA, timely sending out notifications and monitoring reply deadlines to DSPA.  Backup and archive full internal process lifecycle regarding to the matter, including but not limited to all Email conversations, attachments, approvals, and any other traces for the matter. Currently done by using multiple control files and backup email loops in local network drive. |
| 6 | RACC | Confidential Letter Manager | Administrator of confidential letter numbering sequence inbound (CFI) and outbound (CF).  Redispatch, monitor and consolidate replies regarding to inbound letters declared confidential, timely sending out notifications and monitoring reply deadlines. Acquiring outbound (CF) number once reply content is ready for signature.  Backup and archive full internal process lifecycle regarding to the matter, including but not limited to all Email conversations, attachments, approvals, and any other traces for the matter. Currently done by using multiple control files and backup email loops in local network drive. |
| 7 | EC | Executive Committee | 1. Review undefined document types and redispatch. 2. Administrator for CE outbound document numbering sequence. 3. Review and sign CE outbound document. |
| 8 | Normal Users | Normal User | 1. Review and collaborate with documents, perform transfer, receive, modify, archive document actions on the DMS system. 2. Acquiring outbound external sequence number on demand. 3. Responsible to prepare outbound document reply. |

## Functional Analysis

Below chart summarizes existing DMS system functionalities:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **#** | **System** | **Level 1** | **Level 2** | **Level 3** | **Description** |
| 1 | CEM DMS Client Application | System | Login | Username and password login | Local account login |
| 2 | Re-Login | Username and password login and logout current account | Account Switching. One user may have multiple roles, hence switching account to access different features. |
| 3 | Change Password |  |  |
| 4 | Settings | Document Inbound & Outbound documents Default type settings | Default settings for inbound & outbound |
| 5 | API settings | Peering system URL config; ESB API settings；OpenText API settings |
| 6 | Document Numbering Schemes module | Auto sequence generation |  | Auto generate next sequence number whilst document creation. |
| 7 | Sequence manager | Create sequence | Create new sequence numbering series by account. |
| 8 | Reset sequence | Reset sequence count to start all over again from 0 for Outbound External and Outbound Internal. Keeping uniqueness with sequence prefix. |
| 9 | Sequence Numbering format management | Manage sequence numbering format. |
| 10 | Inbound | Inbound Document Management | Create new document | Record inbound documents, refer to Sequence generate Doc. No., including documents metadata details input: subject, sender, sent date, doc type, country, reference, require translation, etc.  Automated metadata input including document sequence no., operating user details, date, etc. |
| 11 | Transfer | Transfer document to next recipient within corporate, and pend for recipient confirm receive. With the option of transferring "true" or "carbon" copy. |
| 12 | Archive | Archive as history document. |
| 13 | Modify | Modify metadata (limited fields, e.g. doc. no. is not modifiable) of the document. |
| 14 | History | Check document  history. |
| 15 | Confirm |  | Recipient confirm receive document after transferred by sender. |
| 16 | Outbound | Register Outbound External Document | Create new document | Record outbound external documents, refer to Sequence generate Doc. No., including documents metadata details input: subject, sender, sent date, doc type, country, reference, require translation, etc.  Automated metadata input including operating user details, date, etc. |
| 17 | Transfer | Transfer document to next recipient within corporate, and pend for recipient confirm receive. With the option of transferring "true" or "carbon" copy. |
| 18 | Archive | Archive as history document. |
| 19 | Modify | Modify metadata (limited fields, e.g. doc. no. is not modifiable) of the document. |
| 20 | History | Check document history. |
| 21 | Register Outbound Internal Document | Create new document | Record outbound internal documents, refer to Sequence generate Doc. No., including documents metadata details input: subject, sender, sent date, doc type, country, reference, require translation, etc.  Automated metadata input including operating user details, date, etc. |
| 22 | Transfer | Transfer document to next recipient within corporate, and pend for recipient confirm receive. With the option of transferring "true" or "carbon" copy. |
| 23 | Archive | Archive as history document. |
| 24 | Modify | Modify metadata (limited fields, e.g. doc. no. is not modifiable) of the document. |
| 25 | History | Check document history. |
| 26 |  | Unconfirmed Document |  | List out unconfirmed documents |
| 27 |  | Confirm Document (Confirm Exit) |  | Recipient confirm receive document after transferred by sender. |
| 28 | Report | Report Generator | Document Information | Report generator by filter options (document date, subject, sender, sending date, sending number, CEM number, region, FAX number, user ID, document type, document inbound Outbound type, etc.), generate customized reports contents; |
| 29 | Routing History |
| 30 | Archive information |
| 31 | Standard Report | Document information | Report generator by filter options (document date, document type, document nature, department, etc.), generate customized reports contents; |
| 32 | Document history |
| 33 | Document Archive |
| 34 | Document Information & History |
| 35 | Document information & Archive |
| 36 | Fax Report |  | Report generator by filter options (document date, document type, department, etc.), generate customized reports contents;  With sorting capabilities (by Country, by Fax/Telex no., Document Date) |
| 37 | User Report |  | Report generator with no filter option, sort by username or department, username. |
| 38 | Department Report |  | Report generator with no filter option, sort by department no., department code, department name. |
| 39 | Document Information | Search filters | Search by: document number, subject, date range, department, document nature. |
| 40 | Search result list | Document basic information list, with document number, date, subject. |
| 41 | Document details | Upon selection in the search results, view document details including all metadata. Attachment/Scan copy is stored separately in OpenText, metadata provides access URL. |
| 42 | View attachment | View document digital version stored in OpenText. |
| 43 | Transfer Cover (Check by transferred department) |  | Search by transferred department |
| 44 | Document Summary Report | Generate list of documents by date range and document nature. | Generate documents list by Inbound/Outbound. |
| 45 | Modify Receiver |  | Modify the transferred department |
| 46 | Maintenance (Admin features) | Department configuration | Setup new department |  |
| 47 | Edit department details |  |
| 48 | User Management | Create user | Local accounts creation |
| 49 | User mapping manager with SSO login for web application | Client only supports local accounts. Multiple SSO login could be mapped to one local account. |
| 50 | Data Type configuration | Document Type | Document type alias mapping table setup |
| 51 | Country | Country alias mapping table setup |
| 52 | Reset Sequence No. | Reset Sequence No. | Reset outbound document sequence number |
| 53 | CEM DMS Web Application | Login Account Management | SSO Login | LDAP integration | Allowing user login with windows account and retrieve profile information. |
| 54 | Login Mapping | Assign according to user account access right according to SSO mapping. | By profile information, check mapping account accordingly |
| 55 | Select user |  | Switch login account to act as another role representative. Simplify logout, login procedures. |
| 56 | Change Password |  | Local account password changing |
| 57 | Search | Confirm document | Search result list | Search by: Document number, subject, date range, department. |
| 58 | Un-confirm document | Search result list | Search by: Document number, subject, date range, department. |
| 59 | Document information | Search result list | Search by: Document number, subject, date range, department, Sender/Receiver, sender ref., CEM ref., document type. |
| 60 | Transfer Cover | Search result list | Search by date range, receiver. |
| 61 | Register External | Create new document |  | Record outbound external documents, refer to Sequence generate Doc. No., including documents metadata details input: subject, sender, sent date, doc type, country, reference, require translation, etc.  Automated metadata input including operating user details, date, etc. |
| 62 | Transfer |  | Transfer document to next recipient within corporate, and pend for recipient confirm receive. With the option of transferring "true" or "carbon" copy. |
| 63 | Archive |  | Archive as history document. |
| 64 | Modify |  | Modify metadata (limited fields, e.g. doc. no. is not modifiable) of the document. |
| 65 | History |  | Check document history. |
| 66 | Register Internal | Create new document |  | Record outbound internal documents, refer to Sequence generate Doc. No., including documents metadata details input: subject, sender, sent date, doc type, country, reference, require translation, etc.  Automated metadata input including operating user details, date, etc. |
| 67 | Transfer |  | Transfer document to next recipient within corporate and pend for recipient confirm receive. With the option of transferring "true" or "carbon" copy. |
| 68 | Archive |  | Archive as history document. |
| 69 | Modify |  | Modify metadata (limited fields, e.g. doc. no. is not modifiable) of the document. |
| 70 | History |  | Check document history. |
| 71 | Confirm Document |  |  | Recipient confirm receive document after transferred by sender. |
| 72 | Un-Confirm Document |  |  | List out unconfirmed documents |
| 73 | Transfer Cover |  |  | Search by receiver (transferred department) |
| 74 | Notification & Alert | Subscribe notification |  | User can subscribe notification, alert on demand |
| 75 | External Integration | OpenText | File upload | File storage | Stores actual file |
| 76 | Access URL generation | OpenText generates file direct access URL |
| 77 | Windows LDAP |  |  | LDAP login |

## Logbooks

Logbook registers hardcopy document internal and external circulation and signoffs.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **#** | **Purpose** | **Register by** | **1st Signoff** | **2nd Signoff** |
| LP1 | For CSD register in front desk | CSD | PLD/messenger | Case1-General doc: Signed by PLD/FAS/AL Case2-Personal doc: Signed by user or dept sec. Case3-DSPA letter: Signed by RACC/RA |
| LP2 | For PLD register incoming confidential letter (GS#) | PLD/FAS/AL | EC/Sec. | N/A |
| LP3 | For PLD register outbound letter (inside CEM building) | PLD/FAS/AL | Government Dept | N/A |
| LP4 | For PLD register outbound letter (outside CEM building) | PLD/FAS/AL | Government Dept | N/A |
| LE1 | For EC/Sec. 1 register outbound letter | EC/Sec. 1 | Government Dept | N/A |
| LE2 | For EC/Sec. 2 register outbound letter | EC/Sec. 2 | Government Dept | N/A |
| LR1 | For RACC/RA register DSPA incoming letter (by hand) when delivered by PLD messenger | RACC/RA | PLD/messenger | N/A |
| LR2 | For RACC(Legal) register outbound confidential letter to be delivered | RACC/RA | Government Dept | N/A |
| LD1 | For DSF register outbound letter (Sent to bank) | DSF | Bank | N/A |
| LD2 | For DSF register bank guarantee letter (transfer to DSF/CNT) | DSF | DSF/CNT | N/A |

## Control Files

Control files are maintained manually, consisting of the document workflow log after department first receiving of the document, logs down document essential information, follow-up parties, deadline, document status, notification history, reply status, etc.

|  |  |  |
| --- | --- | --- |
| **#** | **Filename** | **Usage** |
| CF1 | Incoming Emails from DSPA Control 2024 | DSPA and with cc to DSPA |
| CF2 | Incoming Letters from DSPA and Statistics Control 2024 | DSPA and with cc to DSPA |
| CF3 | Incoming Letters with cc to DSPA Control | DSPA and with cc to DSPA |
| CF4 | Outgoing EC Letters to DSPA Control 2024 | DSPA and with cc to DSPA |
| CF5 | Outgoing Emails to DSPA Control (Relevant) 2024 | DSPA and with cc to DSPA |
| CF6 | Outgoing GE Letters to DSPA Control 2024 | DSPA and with cc to DSPA |
| CF7 | Outgoing Letters with cc to DSPA Control | DSPA and with cc to DSPA |
| CF8 | Incoming Letters Control | Legal |
| CF9 | Outgoing Letters Control | Legal |

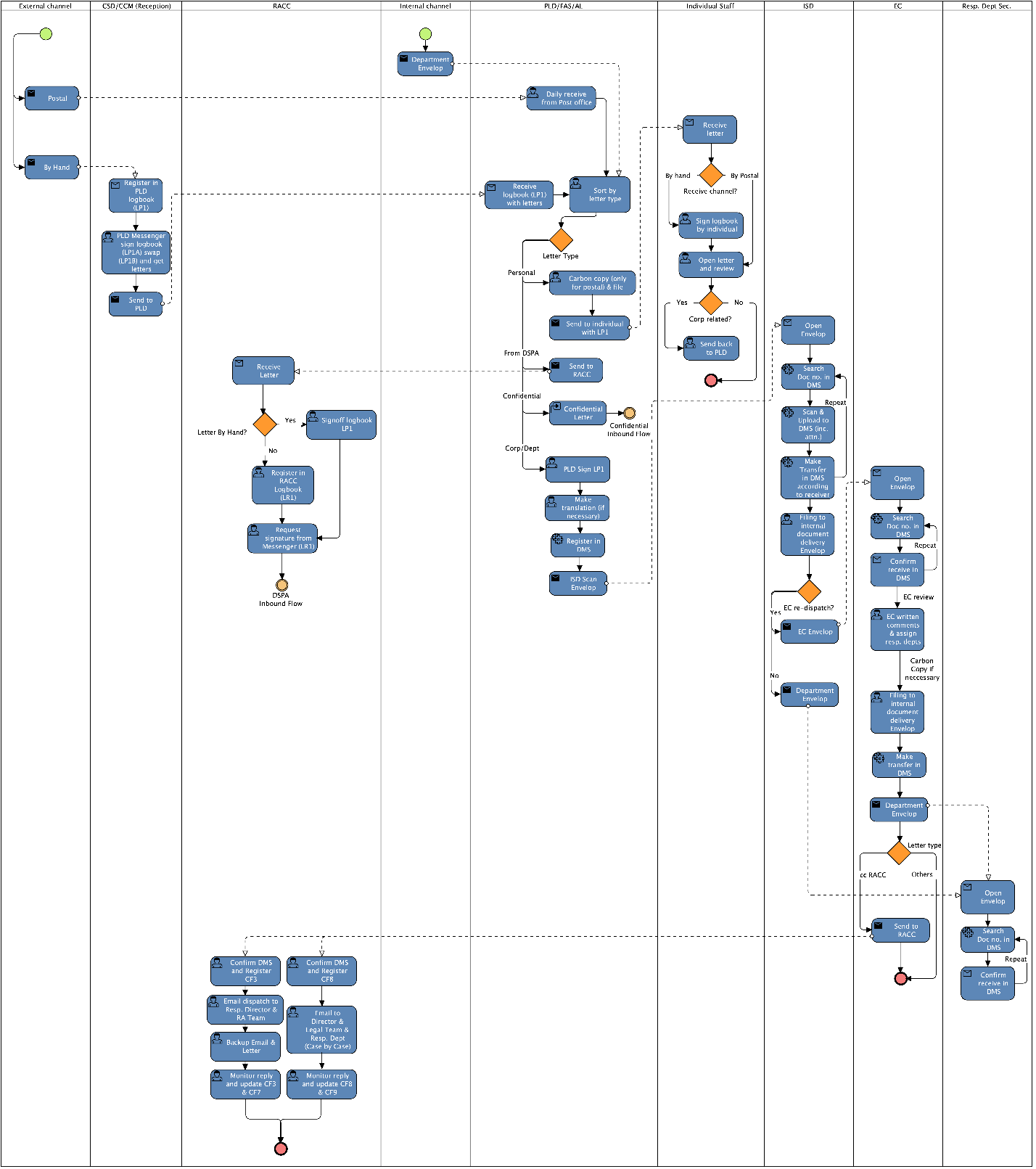
## Existing Hardware

|  |  |
| --- | --- |
| Scanning Center | Using Kodak i3300 with Kodak Capture Pro for scanning. It doesn’t implement any zone OCR or auto detection at this moment. |
| Department Multifunction Printer (MFP) | We are upgrading our HP MFP model. The current models in use are:   * HP E87750z MFP * HP E87760z MFP * HP x57945Z MFP |

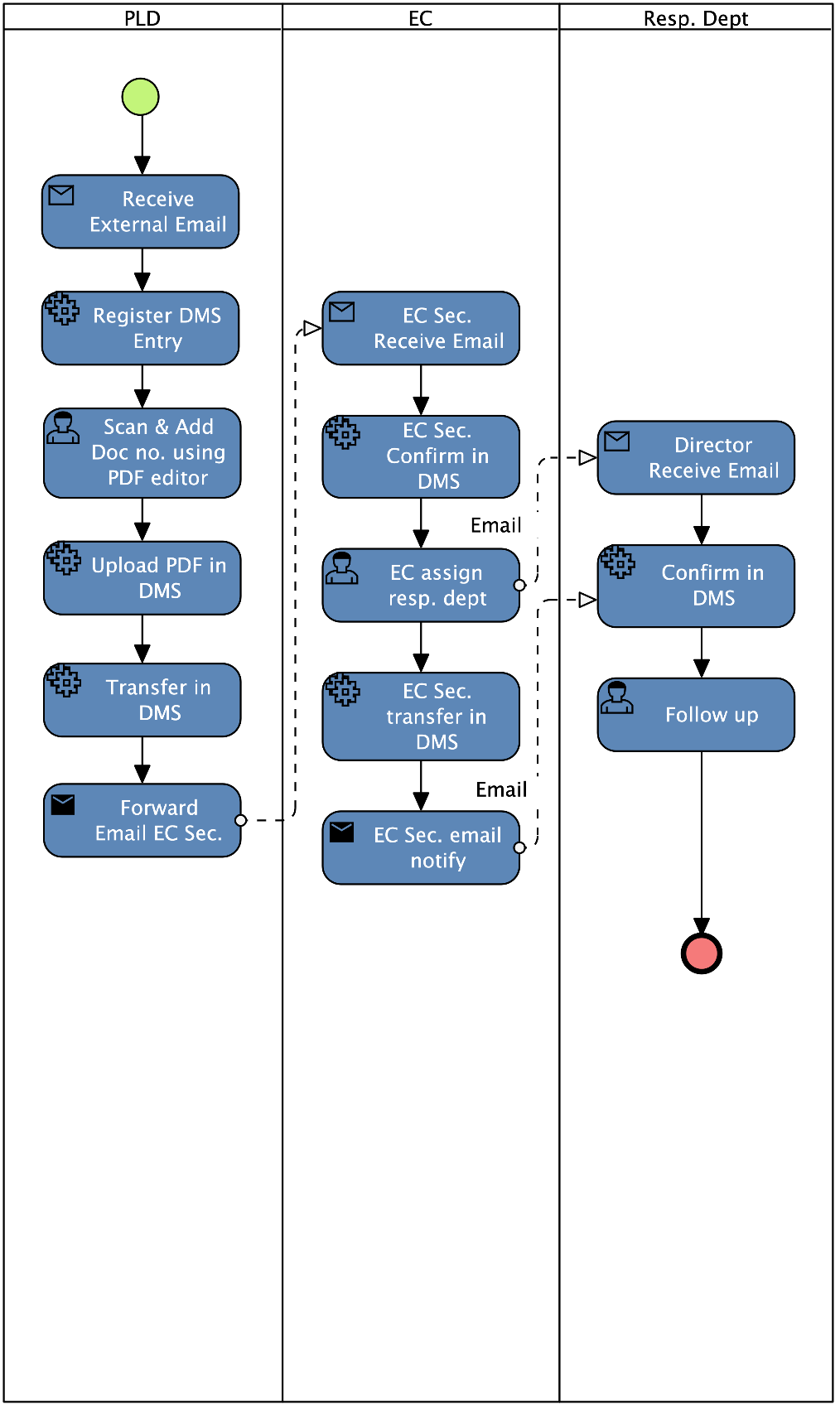
## As-Is Document Flows

### Inbound

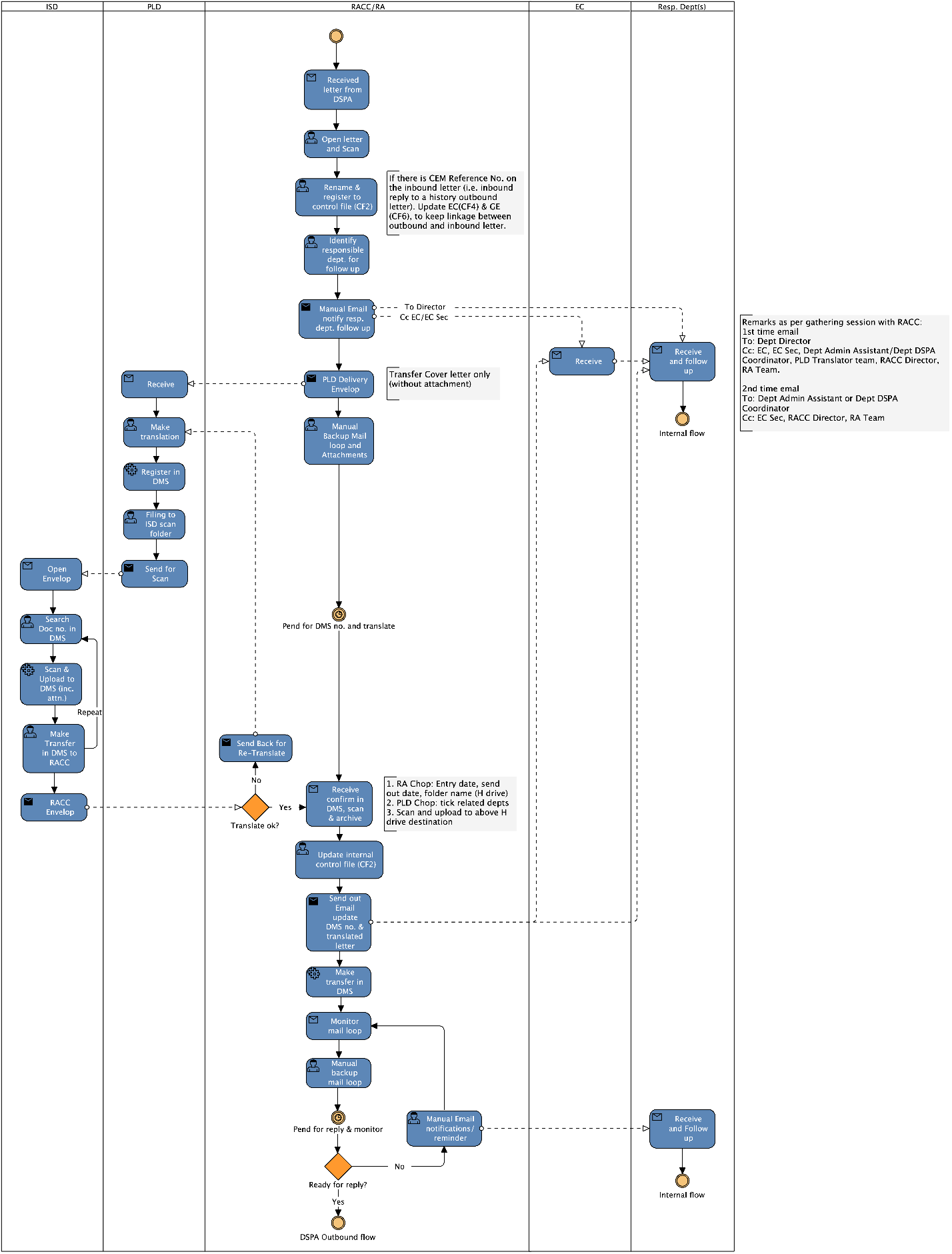
#### **General Inbound (Letter)**



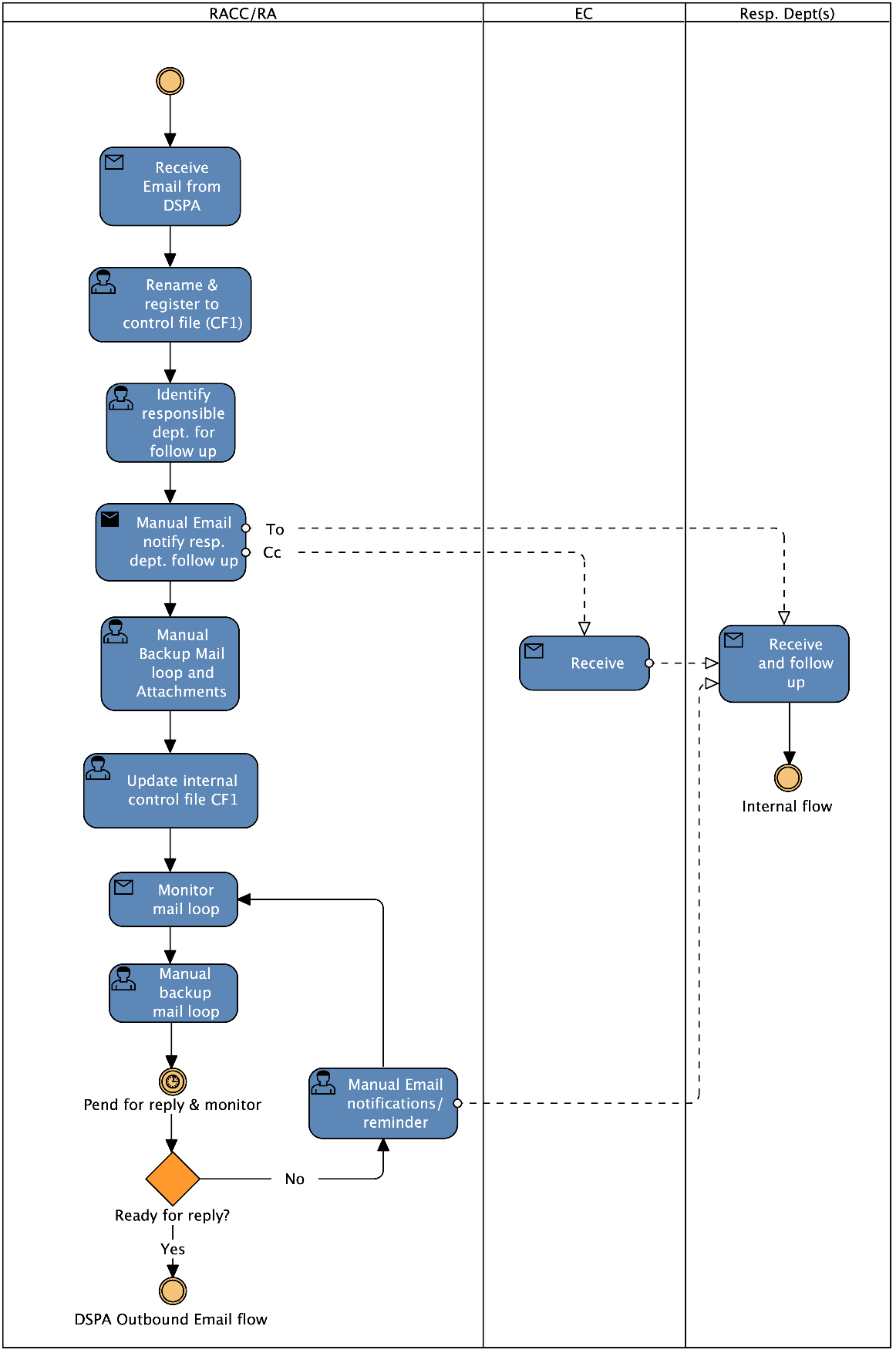
#### **General Inbound (Email)**

****

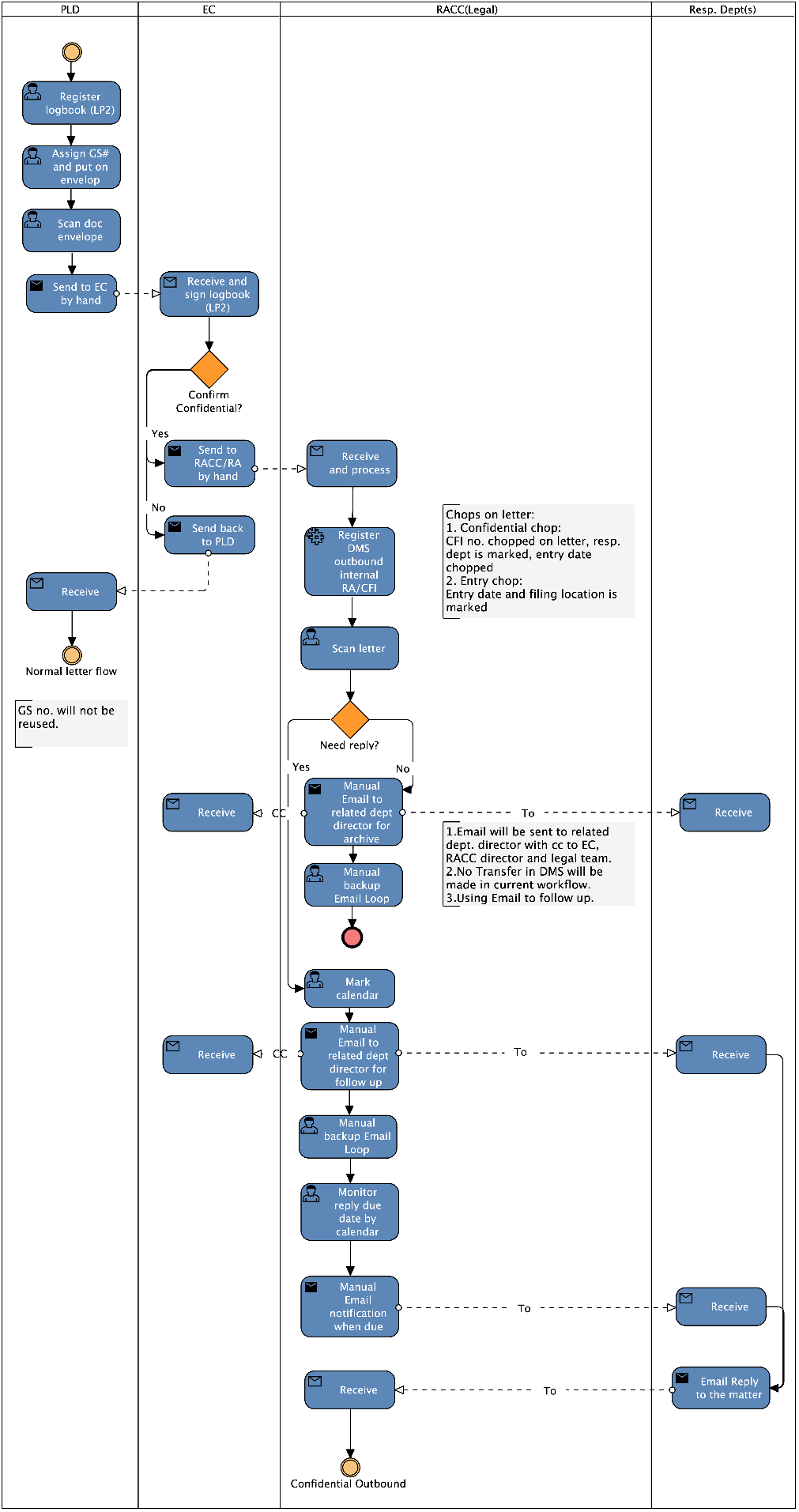
#### **DSPA Inbound (Letter)**

****

#### **DSPA Inbound (Email)**

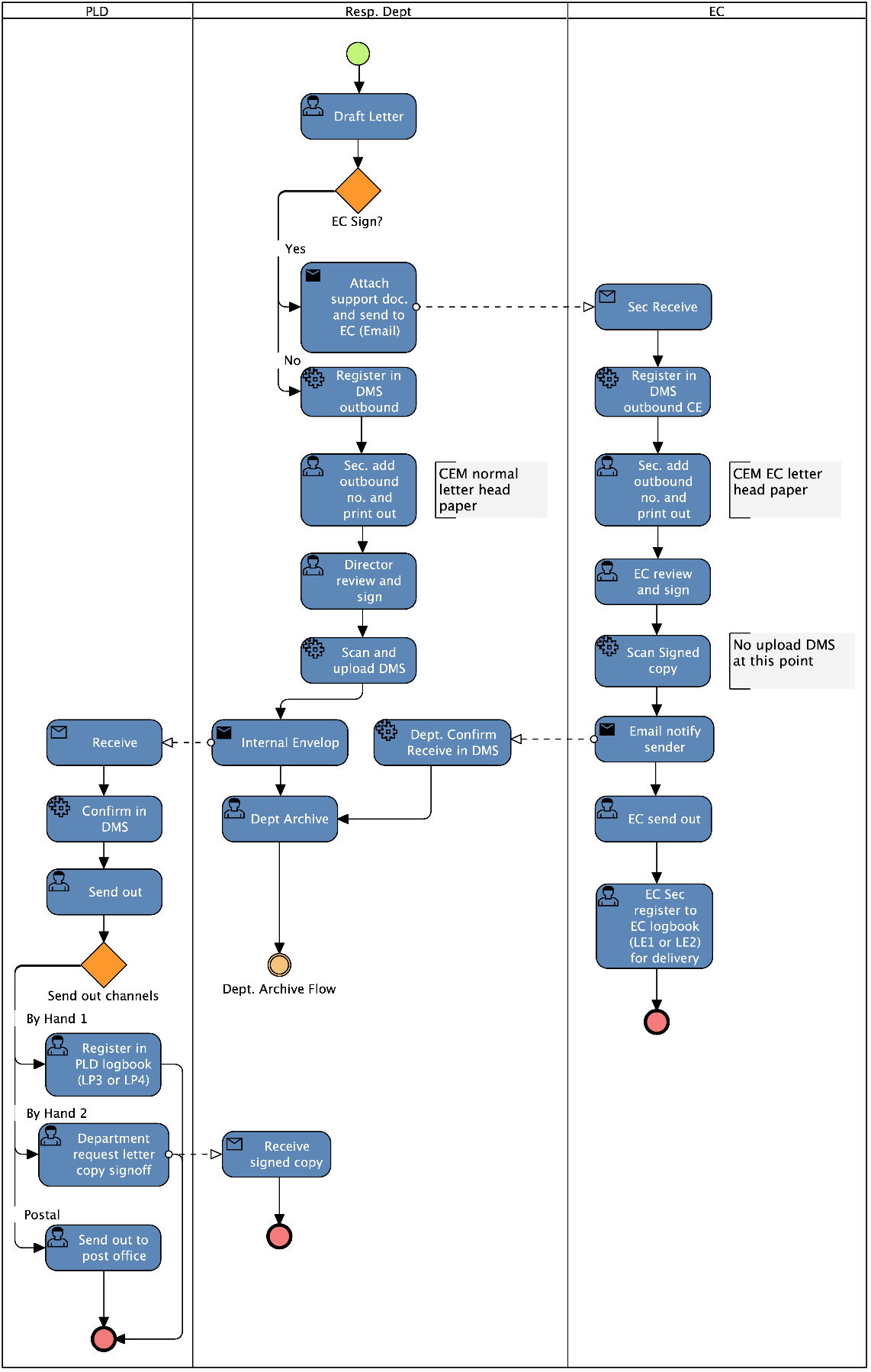
****

#### **Confidential Inbound**

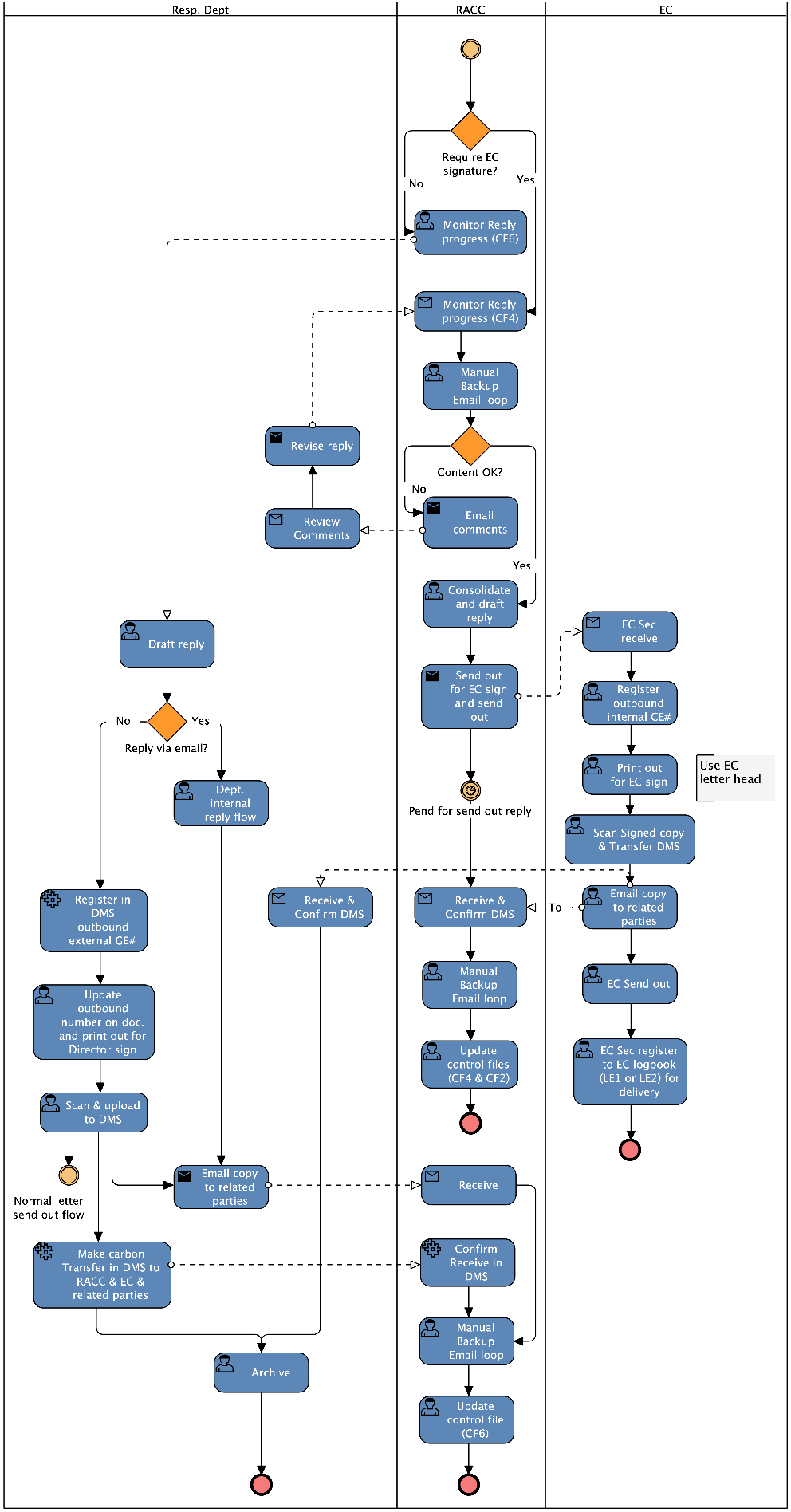


### Outbound

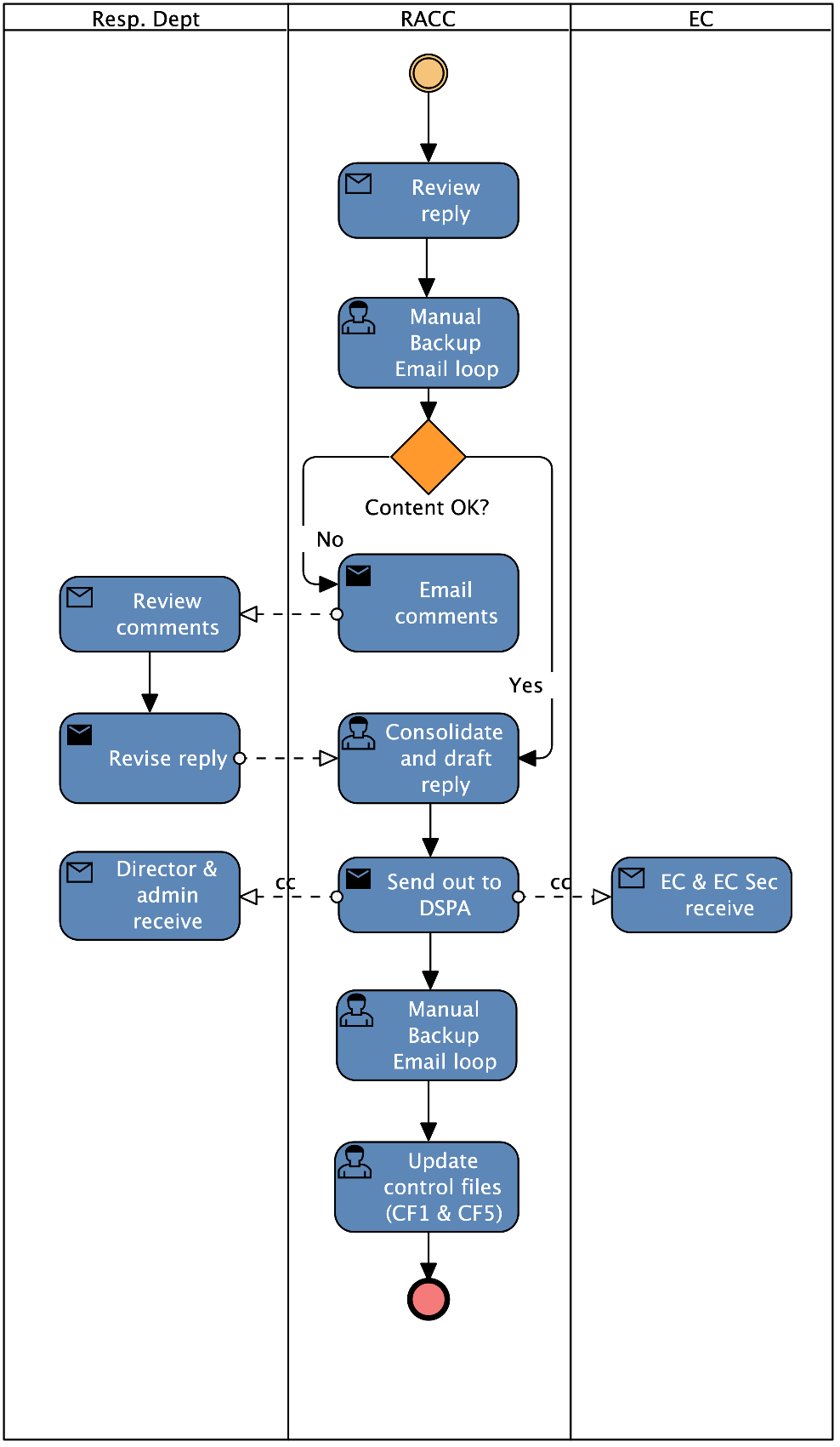
#### **General Outbound (Letter)**



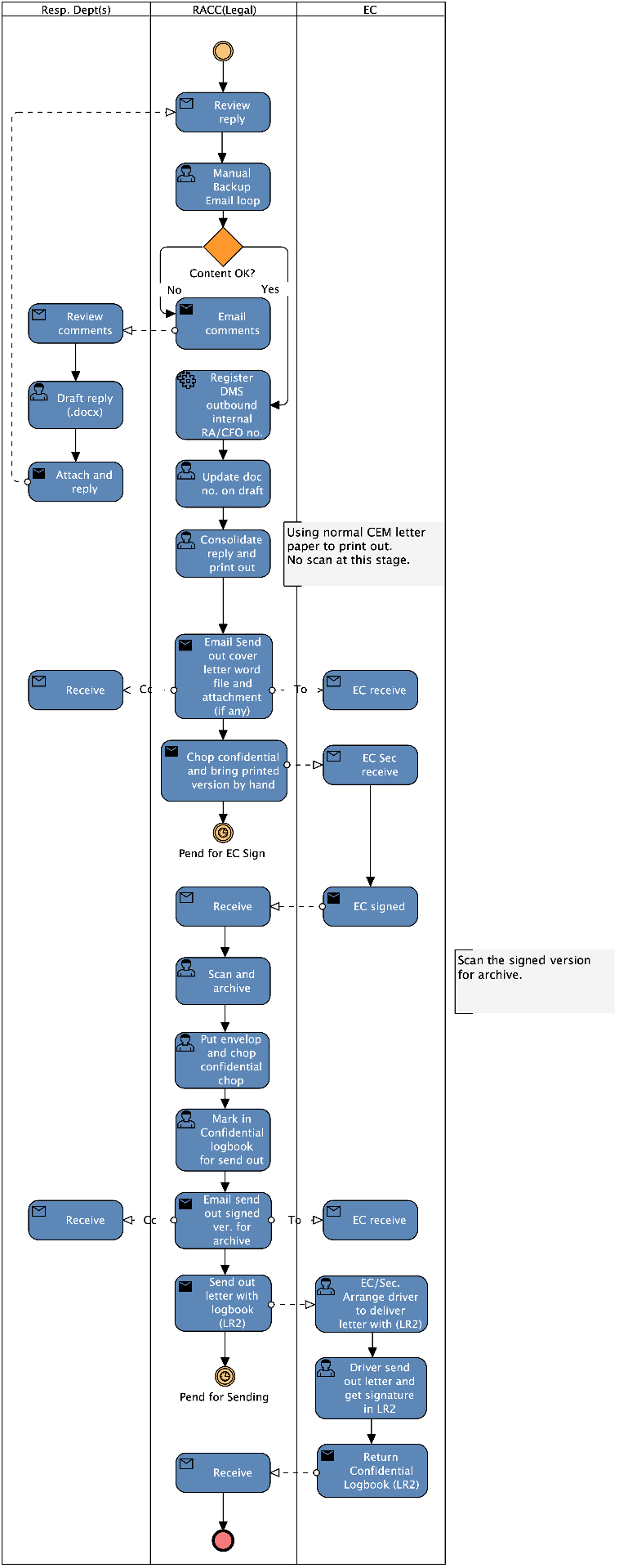
#### **DSPA Outbound (Letter)**

****

#### **DSPA Outbound (Email)**

****

#### **Confidential Outbound**



## Corporate Instructions

Certain corporate instructions govern the workflow process for both internal and external communication. These instructions must be updated whenever changes occur in the workflow process. The tenderer may be required to provide necessary support for the materials provided.

|  |  |
| --- | --- |
| RM1.06-EC011 | 與環境保護局文書往來流程 Correspondence Workflow to and from DSPA |
| MR2.02-01 | 外部溝通 External Communications |
| MR2.02-EC004 | 管理企業外部溝通Manage corporate external communication (flowchart) |
| MR2.02-EC003 | 對外信函的指引 Guidelines for External Correspondence |
| RM1.06-EC010 | Dispatching of Incoming Documents (Mail, Email, Fax and By Hand) and Their Circulation |
| - | Dispatching of Incoming Documents (Draft) |

## Document Classification

Below is a matrix that pre-classified some document types for direct transfer to target receivers.

|  |  |
| --- | --- |
| **Document Type** | **Target Receiver** |
| Invoice | DSF/CNT |
| Advertising | RACC/CC |
| Sponsorship | RACC/CC |
| Licenca da Obra | TAD |
| Licenca Provisoria de Exploracao de Instalacoes Ekectricas | CSD |
| Others | EC |

# Workshop Requirement

A hands-on workshop is required to demonstrate the platform's capability by simulating the same operations listed in this document.

|  |  |
| --- | --- |
| 1. | System Functionality Requirements:   * Demonstrate the complete process of a letter from receipt, circulation, to archiving. * Include user operations for adding, editing, and querying letter records. * Demonstrate the AI usability. |
| 2. | Workflow Process:  Inbound   * Including letter/email registration, Data input, Scanning, Distribution, Management approval and review, Department follow-up (included notification & alert, deadline, status, warm reminder, priority)   Outbound   * Reply letter/reply email, Registration of outbound letter/outbound email, Management signature, Third-party recipients, archiving. |
| 3. | Dashboard:   * Demonstration the dashboards and reporting for workflow status. |

**<<End>>**