# Functional Requirement

### 1.1 Email Creation Function

\*\*Function Number: FR-01\*\*

\*\*Description\*\*: Users can create new emails, fill in recipients, subject, body, and optionally add attachments, ultimately saving the email as a draft or sending it.

\*\*Input\*\*: Recipient address (can be manually entered or selected from contacts or distribution groups), email subject, email body, attachments (optional), operation type (save as draft or send).

\*\*Output\*\*: The email is stored in the draft box or sent queue, the system records email creation log information, and displays a success message to the user.

### 1.2 Email Sending Function

\*\*Function Number: FR-02\*\*

\*\*Description\*\*: Users can submit emails to be sent to the specified recipient's email address. The system needs to verify the completeness of the email content and attempt to send it through the email server.

\*\*Input\*\*: Created email (draft or pending send status), send operation request.

\*\*Output\*\*: The email status is updated to "sent," the system records the sending log, and displays a success message to the user.

### 1.3 Email Receiving Function

\*\*Function Number: FR-03\*\*

\*\*Description\*\*: The system needs to download new emails from the email server periodically or in real-time, parse the email content (including body, attachments, etc.), and store them in the user's inbox.

\*\*Input\*\*: New email data from the email server, user's email account configuration.

\*\*Output\*\*: The email is stored in the user's inbox, the email receiving log is recorded, and the system sends a notification to the user.

### 1.4 Email Deletion Function

\*\*Function Number: FR-04\*\*

\*\*Description\*\*: Users can choose to delete emails from the inbox, draft box, or sent box, and the system moves them to the trash or deletes them directly according to the configuration.

\*\*Input\*\*: User-selected email entries, delete operation request.

\*\*Output\*\*: The email is removed from the current folder, the system records the deletion log, and displays a success message to the user.

### 1.5 Email Search Function

\*\*Function Number: FR-05\*\*

\*\*Description\*\*: Users can search for emails based on keywords, senders, recipients, date ranges, and other conditions, and the system returns a list of matching emails.

\*\*Input\*\*: Search criteria (keywords, senders, recipients, date ranges, etc.), search scope (all folders or specific folders).

\*\*Output\*\*: A list of emails that match the search criteria, the system records the search log, and displays the search results to the user.

### 1.6 Email Folder Management Function

\*\*Function Number: FR-06\*\*

\*\*Description\*\*: Users can create, rename, move, or delete email folders, and the system updates the email storage structure according to user operations and records operation logs.

\*\*Input\*\*: Folder operation type (create, rename, move, delete), folder name (optional), target folder (optional), email selection (optional).

\*\*Output\*\*: The email folder structure is updated, emails are correctly categorized, the system records folder management operation logs, and displays a success message to the user.

### 1.7 Schedule Creation Function

\*\*Function Number: FR-07\*\*

\*\*Description\*\*: Users can create new schedules, fill in title, time, location, description, and other information, and set reminder tasks. The system saves the schedule and records the creation log.

\*\*Input\*\*: Schedule title, start time, end time, location, description, participants (optional), reminder settings (optional).

\*\*Output\*\*: The schedule is stored in the user's schedule list, the system generates reminder tasks based on reminder settings, and records the creation log.

### 1.8 Schedule Viewing Function

\*\*Function Number: FR-08\*\*

\*\*Description\*\*: Users can select a specific schedule from the schedule list, and the system loads and displays its detailed information.

\*\*Input\*\*: User-selected schedule entry.

\*\*Output\*\*: Detailed information of the selected schedule, the system records the viewing log, and provides options for further editing or deletion.

### 1.9 Schedule Editing Function

\*\*Function Number: FR-09\*\*

\*\*Description\*\*: Users can modify the information of created schedules, including title, time, location, description, participants, and reminder settings. The system saves the changes and records the editing log.

\*\*Input\*\*: User-selected schedule entry, modified content (title, time, location, description, participants, reminder settings).

\*\*Output\*\*: The schedule information is updated, the system records the editing log, and displays a success message to the user.

### 1.10 Schedule Deletion Function

\*\*Function Number: FR-10\*\*

\*\*Description\*\*: Users can select a schedule from the schedule list for deletion, and the system removes the schedule from the list and deletes the associated reminder tasks.

\*\*Input\*\*: User-selected schedule entry, delete operation request.

\*\*Output\*\*: The schedule is removed from the list, the reminder task is synchronously deleted, the system records the deletion log, and displays a success message to the user.

### 1.11 Contact Addition Function

\*\*Function Number: FR-11\*\*

\*\*Description\*\*: Users can add new contact information, including name, email, phone, address, notes, etc., and can choose whether to join a distribution group.

\*\*Input\*\*: Contact name, email address, phone, address, notes, distribution group (optional).

\*\*Output\*\*: Contact information is saved to the system database, distribution group information is synchronously updated, the system records the addition log, and displays a success message to the user.

### 1.12 Contact Viewing Function

\*\*Function Number: FR-12\*\*

\*\*Description\*\*: Users can view the contact list and select to view detailed information of a specific contact.

\*\*Input\*\*: User-selected contact entry.

\*\*Output\*\*: Detailed information of the contact is displayed, the system records the viewing log, and provides options for further editing or deletion.

### 1.13 Contact Editing Function

\*\*Function Number: FR-13\*\*

\*\*Description\*\*: Users can modify contact information (such as email, phone, address, notes) and update their membership in distribution groups.

\*\*Input\*\*: User-selected contact entry, modified content (email, phone, address, notes), distribution group update (optional).

\*\*Output\*\*: Contact information is updated, distribution group information is synchronously updated, the system records the editing log, and displays a success message to the user.

### 1.14 Contact Deletion Function

\*\*Function Number: FR-14\*\*

\*\*Description\*\*: Users can delete contacts from the contact list, and the system synchronously updates distribution group information.

\*\*Input\*\*: User-selected contact entry, delete operation request.

\*\*Output\*\*: Contact information is deleted from the database, distribution group information is synchronously updated, the system records the deletion log, and displays a success message to the user.

### 1.15 Distribution Group Creation Function

\*\*Function Number: FR-15\*\*

\*\*Description\*\*: Users can select multiple contacts from the contact list to create a new distribution group and save its membership.

\*\*Input\*\*: Distribution group name, contact selection list, creation operation request.

\*\*Output\*\*: Distribution group information is stored in the system, the system records the creation log, and displays a success message to the user.

### 1.16 Distribution Group Editing Function

\*\*Function Number: FR-16\*\*

\*\*Description\*\*: Users can modify the name of the distribution group and add or remove members of the distribution group. The system synchronously updates the association between contacts and distribution groups.

\*\*Input\*\*: User-selected distribution group entry, modified distribution group name, contact selection list.

\*\*Output\*\*: Distribution group information is updated, contact membership is synchronously updated, the system records the editing log, and displays a success message to the user.

### 1.17 Distribution Group Deletion Function

\*\*Function Number: FR-17\*\*

\*\*Description\*\*: Users can select a distribution group from the distribution group list for deletion, and the system解除 the association between the distribution group and contacts.

\*\*Input\*\*: User-selected distribution group entry, delete operation request.

\*\*Output\*\*: Distribution group information is deleted from the database, contact membership is synchronously updated, the system records the deletion log, and displays a success message to the user.

### 1.18 Reminder Task Setting Function

\*\*Function Number: FR-18\*\*

\*\*Description\*\*: Users can set reminder tasks when creating or editing entities such as schedules and emails, including reminder time, reminder method, and whether to repeat reminders.

\*\*Input\*\*: Reminder time, reminder method, whether to repeat reminders, entity associated with the reminder task (such as schedule, email, etc.).

\*\*Output\*\*: Reminder task information is saved to the system database, the system records the setting log, and displays a success message to the user.

### 1.19 Reminder Task Cancellation Function

\*\*Function Number: FR-19\*\*

\*\*Description\*\*: Users can cancel set reminder tasks, and the system updates the reminder status of the related entity and deletes or marks the reminder task.

\*\*Input\*\*: User-selected reminder task entry, cancellation operation request.

\*\*Output\*\*: The reminder task status is updated, the system records the cancellation log, and displays a success message to the user.

### 1.20 Email Account Creation Function

\*\*Function Number: FR-20\*\*

\*\*Description\*\*: Administrators can create new email accounts and set account information such as username, password, email address, server configuration, etc.

\*\*Input\*\*: Email account name, password, email address, server configuration information, permission allocation.

\*\*Output\*\*: Email account information is saved to the system, the system records the creation log, and displays a success message to the administrator.

### 1.21 Email Account Management Function

\*\*Function Number: FR-21\*\*

\*\*Description\*\*: Users can view, edit, or delete their email account configuration and test the email connection status.

\*\*Input\*\*: User-selected email account entry, modified email configuration information, test connection request.

\*\*Output\*\*: Email account information is updated or deleted, the system records the management log, and displays a success message to the user.

### 1.22 Email Archiving Function

\*\*Function Number: FR-22\*\*

\*\*Description\*\*: Users can archive emails to the archive folder, and the system updates the email status and records the archiving log.

\*\*Input\*\*: User-selected email entry, archiving operation request.

\*\*Output\*\*: The email status is updated to "archived," the email is moved to the archive folder, the system records the archiving log, and displays a success message to the user.

### 1.23 Email Recovery Function

\*\*Function Number: FR-23\*\*

\*\*Description\*\*: Users or administrators can recover archived emails, and the system moves them back to the inbox or specified folder and records the recovery log.

\*\*Input\*\*: User or administrator-selected archived email entry, recovery operation request.

\*\*Output\*\*: The email status is updated to "recovered," the email is moved back to the inbox or specified folder, the system records the recovery log, and displays a success message to the user or administrator.

### 1.24 Email Retention Policy Setting Function

\*\*Function Number: FR-24\*\*

\*\*Description\*\*: Administrators can set email retention policies, including retention time and automatic archiving or deletion rules. The system executes email processing tasks according to the policy.

\*\*Input\*\*: Target email account or folder, retention time, archiving or deletion rules, exception conditions (optional).

\*\*Output\*\*: The email retention policy is saved to the system configuration, the system records the setting log, and displays a success message to the administrator.

### 1.25 Expiry Email Processing Function

\*\*Function Number: FR-25\*\*

\*\*Description\*\*: The system automatically processes expired emails according to the email retention policy, including archiving, backing up, or deleting operations, and records the processing log.

\*\*Input\*\*: Expired emails scanned by the system, archiving, backing up, or deleting rules.

\*\*Output\*\*: The email status is updated to "archived," "backed up," or "deleted," the system records the processing log, and can send processing notifications to administrators or users.

### 1.26 Data Backup Function

\*\*Function Number: FR-26\*\*

\*\*Description\*\*: Users or administrators can choose to back up data such as emails, schedules, and contacts, and the system exports and stores them to the specified path.

\*\*Input\*\*: Data range selected by users or administrators (emails, schedules, contacts, etc.), backup path, backup time period (optional).

\*\*Output\*\*: Backup files are generated and stored to the specified path, the system records the backup log, and displays a success message to users or administrators.

### 1.27 Data Recovery Function

\*\*Function Number: FR-27\*\*

\*\*Description\*\*: Users or administrators can choose to restore backup or archived data, and the system restores it to the original location and records the recovery log.

\*\*Input\*\*: Backup or archived data entries selected by users or administrators, recovery operation request.

\*\*Output\*\*: Data is restored and updated to the original location, the system records the recovery log, and displays a success message to users or administrators.

### 1.28 Point-in-Time Data Restore Function

\*\*Function Number: FR-28\*\*

\*\*Description\*\*: Administrators can select backup data from a specific point in time, and the system restores the data state according to that point in time and records the operation log.

\*\*Input\*\*: Backup record selected by the administrator, point in time, restore scope (such as all data or partial data).

\*\*Output\*\*: The system data state is updated to the state of the selected point in time, the system records the restore log, and displays a success message to the administrator.

### 1.29 Mailbox Library Restore Function

\*\*Function Number: FR-29\*\*

\*\*Description\*\*: Administrators can restore email data for the entire mailbox library, and the system loads emails from the backup file and restores them to the target email account.

\*\*Input\*\*: Backup file selected by the administrator, target email account.

\*\*Output\*\*: Email data is restored to the target email account, the system records the restore log, and displays a success message to the administrator.

### 1.30 Administrator Account Creation Function

\*\*Function Number: FR-30\*\*

\*\*Description\*\*: Administrators can create new administrator accounts and set their permission scope. The system saves administrator account information and records the creation log.

\*\*Input\*\*: Administrator username, password, real name, email, permission scope.

\*\*Output\*\*: Administrator account information is stored in the system, the system records the creation log, and displays a success message to the administrator.

### 1.31 Administrator Permission Management Function

\*\*Function Number: FR-31\*\*

\*\*Description\*\*: Administrators can assign, modify, or revoke permissions for other administrators, and the system updates the permission configuration and records the management log.

\*\*Input\*\*: Target administrator account, permission type (assign, modify, revoke), permission configuration information.

\*\*Output\*\*: Administrator permissions are updated, the system records the management log, and displays a success message to the administrator.

### 1.32 Shared Account Creation Function

\*\*Function Number: FR-32\*\*

\*\*Description\*\*: Administrators can create shared accounts and set permission limits (such as email sending limits, schedule creation limits, etc.).

\*\*Input\*\*: Shared account name, password, description, permission limit configuration.

\*\*Output\*\*: Shared account information is saved to the system, the system records the creation log, and displays a success message to the administrator.

### 1.33 Shared Account Management Function

\*\*Function Number: FR-33\*\*

\*\*Description\*\*: Administrators can edit shared account information, delete shared accounts, or adjust their permission configuration. The system updates the shared account status and records the management log.

\*\*Input\*\*: Shared account entry, modified account information, permission configuration update, delete request.

\*\*Output\*\*: Shared account information is updated or deleted, the system records the management log, and displays a success message to the administrator.

### 1.34 Email Flow Capture Function

\*\*Function Number: FR-34\*\*

\*\*Description\*\*: The system captures email flows that meet the criteria in real-time or periodically according to the email flow capture rules configured by the administrator and records the capture log.

\*\*Input\*\*: Capture rules (keywords, senders, recipients, time ranges, etc.), email server connection status.

\*\*Output\*\*: Email flow capture data is stored in the system, the system records the capture log, and sends a capture notification to the administrator.

### 1.35 Email Flow Capture Record Viewing Function

\*\*Function Number: FR-35\*\*

\*\*Description\*\*: Administrators can query email flow capture records, and the system returns matching email flow records based on the query conditions.

\*\*Input\*\*: Query conditions (time range, senders, recipients, keyword matching rules, etc.).

\*\*Output\*\*: Email flow record list, the system records the query log, and displays a success message to the administrator.

### 1.36 Backup Log Management Function

\*\*Function Number: FR-36\*\*

\*\*Description\*\*: Users or administrators can query, export, or delete backup log records, and the system updates the log list and records the management operation log.

\*\*Input\*\*: Query conditions (time range, operation type, executing user, etc.), export request, delete request.

\*\*Output\*\*: Backup log list is updated, the system records the management log, and displays a success message to users or administrators.

### 1.37 Recovery Log Management Function

\*\*Function Number: FR-37\*\*

\*\*Description\*\*: Users or administrators can query, export, or delete recovery log records, and the system updates the log list and records the management operation log.

\*\*Input\*\*: Query conditions (time range, operation type, executing user, etc.), export request, delete request.

\*\*Output\*\*: Recovery log list is updated, the system records the management log, and displays a success message to users or administrators.

### 1.38 Archiving Policy Management Function

\*\*Function Number: FR-38\*\*

\*\*Description\*\*: Administrators can create, modify, or delete email archiving policies, and the system automatically archives emails that meet the criteria according to the policy and records the management log.

\*\*Input\*\*: Archiving policy name, archiving rules (time, email status, sender, subject, etc.), effective status.

\*\*Output\*\*: Archiving policy is updated or deleted, the system records the management log, and displays a success message to the administrator.

### 1.39 Account Registration Function

\*\*Function Number: FR-39\*\*

\*\*Description\*\*: Users can register system accounts, fill in information such as username, password, email, etc., and the system verifies the information and records the registration log.

\*\*Input\*\*: Username, password, confirm password, email, verification code.

\*\*Output\*\*: User account information is stored in the system, the system records the registration log, and sends a notification to the user about the registration success or the need for verification.

### 1.40 Account Login Function

\*\*Function Number: FR-40\*\*

\*\*Description\*\*: Users can log in to the system by entering their username and password. The system verifies the user's identity and records the login log.

\*\*Input\*\*: Username, password, verification code (optional), two - factor authentication code (optional).

\*\*Output\*\*: The user logs in successfully and accesses the main interface. The system records the login log and provides login failure prompts (such as account not activated, password error, etc.).