# Functional Requirement

## 1.1 Email Sending Function

Function Number: FR-01

Description: Users can create and send new emails through the email editing interface. The system will validate the required fields and execute the sending operation.

Input: Email editing form (recipient, CC, BCC, subject, body, attachment).

Output: The email is successfully sent to the specified recipient. A copy of the email is automatically saved to the Sent Items folder, and the email list interface is updated by the system.

## 1.2 Email Receiving Function

Function Number: FR-02

Description: The system periodically checks the email server, automatically retrieves new email data packets, and parses and stores them in the inbox.

Input: Email server communication interface, email data packet (including email content, sender, subject, timestamp, etc.).

Output: New emails are stored in the inbox and marked as unread. The unread email count on the email homepage is updated, and the archiving policy is triggered to automatically classify and store emails.

## 1.3 Email Composition Function

Function Number: FR-03

Description: Users can compose email content through the email editing interface. The system supports rich text formatting, attachment uploading, and association operations with calendar items/tasks.

Input: Email editing form (sender, recipient, subject, body, attachment, calendar/task association options).

Output: The newly composed email content is saved to the Drafts folder. Email metadata is validated, and a mapping relationship is established between the email and calendar items/tasks.

## 1.4 Email Search Function

Function Number: FR-04

Description: Users can search for emails based on keywords, time range, folder limitations, and other conditions through the advanced search panel.

Input: Search panel parameters (keywords, time range, folder limitations, sender/recipient filtering, attachment type filtering).

Output: The list of emails that meet the conditions is displayed in sorted order. The search history is updated, and the archiving policy is triggered to expand the search scope.

## 1.5 Email Folder Management Function

Function Number: FR-05

Description: Users can create, rename, delete, move, and set attributes for email folders. The system automatically updates the email storage paths.

Input: Folder management panel parameters (folder name, parent folder, access permissions, auto-cleanup rules, distribution group access permissions).

Output: The folder structure is updated, the storage locations of associated emails are adjusted, changes are recorded in the operation log, and the execution records of the archiving policy are updated.

## 1.6 Email Deletion Function

Function Number: FR-06

Description: Users can delete target emails through the email list interface. The system moves them to the trash or deletes them directly based on the deletion mode.

Input: Emails selected in the email list interface, deletion mode (normal deletion/permanent deletion).

Output: The target emails are moved to the trash or deleted directly. The email count in the original folder is updated, and the deletion event is recorded in the operation log.

## 1.7 Email Archiving Function

Function Number: FR-07

Description: Users can manually archive emails or classify and store them according to automatic archiving policies. The system updates the relevant folders and archiving records.

Input: Emails selected in the email list interface, archiving policy parameters (archiving folder path, retention period, classification tags).

Output: The emails are transferred to the specified archiving folder. The operation record is written to the audit log, and the email list interface is refreshed to display the archiving status.

## 1.8 Contact Management Function

Function Number: FR-08

Description: Users can create, edit, and delete contacts and manage their distribution groups. The system synchronously updates the distribution group membership relationships.

Input: Contact management interface parameters (contact information, distribution group selection, permission settings).

Output: Contact information is updated in the database, the distribution group membership relationships are synchronously updated, and the changes are recorded in the operation log.

## 1.9 Distribution Group Management Function

Function Number: FR-09

Description: Users can create, edit, and delete distribution groups and manage their members. The system automatically updates the distribution group list in the email sending module.

Input: Distribution group management interface parameters (distribution group name, member list, permission settings).

Output: Distribution group information is updated in the database, the member list is synchronously updated, and the changes are recorded in the operation log.

## 1.10 Distribution Group Member Addition Function

Function Number: FR-10

Description: Users can add new members through the distribution group management interface. The system validates the contact's validity and updates the distribution group member list.

Input: Distribution group management interface member addition parameters (contact selection, external email input, batch import of CSV files).

Output: The distribution group member list is updated, the distribution group list in the email sending module is synchronously updated, and the member changes are recorded in the operation log.

## 1.11 Calendar Event Creation Function

Function Number: FR-11

Description: Users can create new calendar events through the calendar management interface. The system generates a unique ID and automatically sends meeting invitations.

Input: Calendar event creation form parameters (title, time, location, participants, reminder rules, associated email/task).

Output: The calendar event is persistently stored in the personal calendar, a mapping is established with the associated email/task, and the reminder settings take effect.

## 1.12 Calendar Event Deletion Function

Function Number: FR-12

Description: Users can delete calendar events through the calendar or list view. The system synchronously updates the participants' calendars and releases resources.

Input: Calendar events selected in the calendar list interface, deletion mode (normal deletion/permanent deletion).

Output: The calendar event is moved to the recycle bin or permanently deleted, associated resources are unbound, and the deletion event is recorded in the operation log.

## 1.13 Calendar Event Editing Function

Function Number: FR-13

Description: Users can modify calendar event information through the calendar or list view. The system updates the relevant data and synchronizes it with participants.

Input: Calendar event editing form parameters (title, time, location, participants, reminder rules).

Output: The modified calendar event information is persistently stored, associated participants receive update notifications, and the modification event is recorded in the operation log.

## 1.14 Task Creation Function

Function Number: FR-14

Description: Users can create new tasks through the task management interface. The system binds related emails or calendar events and sets reminder rules.

Input: Task creation form parameters (title, priority, due date, task details, associated email/calendar event, reminder settings).

Output: Task information is persistently stored, a bidirectional association is established with the email/calendar event, and the reminder settings take effect.

## 1.15 Task Deletion Function

Function Number: FR-15

Description: Users can delete tasks through the task list interface. The system removes associated reminders and updates the task status.

Input: Tasks selected in the task list interface, deletion mode (normal deletion/permanent deletion).

Output: The task is moved to the recycle bin or permanently deleted, related emails/calendar events are unbound, and the deletion event is recorded in the operation log.

## 1.16 Task Editing Function

Function Number: FR-16

Description: Users can modify task information through the task list interface. The system synchronously updates the email/calendar event association status.

Input: Task editing form parameters (title, due date, priority, task details, checklist items, associated email/calendar event).

Output: The modified task information is persistently stored, the association status of related emails/calendar events is updated, and the modification event is recorded in the operation log.

## 1.17 Email Configuration Management Function

Function Number: FR-17

Description: Users can manage personal information, security options, email filtering rules, and archiving policies through the email settings interface.

Input: Email configuration panel parameters (signature, auto-reply rules, email filtering rules, security settings).

Output: Email configuration information is persistently stored, related policies take effect synchronously, and the configuration changes are recorded in the operation log.

## 1.18 Shared Account Creation Function

Function Number: FR-18

Description: Administrators can create shared accounts through the account management interface. The system generates a unique ID and allocates resource quotas.

Input: Shared account creation form parameters (account name, department, permission settings, resource quota).

Output: Shared account information is persistently stored, associated resource quotas take effect, and the account creation event is recorded in the operation log.

## 1.19 Shared Account Deletion Function

Function Number: FR-19

Description: Administrators can delete shared accounts through the account management interface. The system terminates all active sessions and releases resources.

Input: Shared account deletion parameters (account name, deletion mode, resource disposal plan).

Output: The shared account is marked as disabled or permanently deleted, resource quotas are released, and the deletion event is recorded in the operation log.

## 1.20 Shared Account Editing Function

Function Number: FR-20

Description: Administrators can modify shared account configurations through the account management interface. The system synchronously updates permissions and resource quotas.

Input: Shared account editing form parameters (account name, permission settings, resource quota).

Output: Account configuration information is updated, permissions and resource quotas take effect, and the modification event is recorded in the operation log.

## 1.21 Email Archiving Policy Management Function

Function Number: FR-21

Description: Administrators can create, edit, and delete archiving policies through the policy management interface. The system updates archiving rules and executes matching email archiving.

Input: Archiving policy configuration parameters (name, matching conditions, execution actions, retention period, priority).

Output: Archiving policy information is persistently stored, matching emails are automatically archived, and the policy changes are recorded in the operation log.

## 1.22 Email Backup Function

Function Number: FR-22

Description: Users can create email backups through the backup management interface. The system generates backup files and saves them to the specified storage path.

Input: Backup configuration parameters (backup scope, content type, storage path, encryption settings).

Output: Backup files are generated and saved to the specified path, and the backup event is recorded in the operation log.

## 1.23 Email Restore Function

Function Number: FR-23

Description: Users can restore emails from backup files through the backup management interface. The system rebuilds email metadata and associations.

Input: Restore configuration parameters (backup file selection, restore scope, target path, conflict resolution rules).

Output: Emails are restored to the specified location from the backup file, the original backup file is retained, and the restore event is recorded in the operation log.

## 1.24 Email Backup Log Viewing Function

Function Number: FR-24

Description: Users can view backup logs through the backup management interface. The system displays records of backup and restore operations.

Input: Log query parameters (time range, operation type, status filtering, keyword search).

Output: Backup log entries that meet the conditions are displayed in reverse chronological order, operation details are fully presented, and export files are generated.

## 1.25 User Registration Function

Function Number: FR-25

Description: External users can submit applications through the registration interface. The system checks approval rules and sends confirmation information.

Input: Registration application form parameters (name, phone number, email, organization information, verification code).

Output: The registration request is recorded in the pending approval queue, temporary account information is generated, and the registration event is recorded in the operation log.

## 1.26 User Deletion Function

Function Number: FR-26

Description: Administrators can delete user accounts through the user management interface. The system migrates or clears associated data according to the policy.

Input: User deletion parameters (user ID, deletion mode, data disposal plan).

Output: The user account is marked as disabled or completely deleted, permission matrix and resource quotas are fully released, and the deletion event is recorded in the operation log.

## 1.27 Email Status Viewing Function

Function Number: FR-27

Description: Users can view the status details of target emails through the email list interface. The system displays delivery paths and security information.

Input: Email status query parameters (email ID, time range, recipient status filtering).

Output: Email status details are fully presented, the operation log records the viewing behavior, and the display is refreshed when the status is updated.

## 1.28 Email Status Management Function

Function Number: FR-28

Description: Users can modify email status through the email management interface. The system synchronously updates related modules and records operation logs.

Input: Email status modification parameters (read/unread, urgency flag, custom tags, follow-up status).

Output: Email status is updated in the database, associated tasks/calendar events synchronize status, and the modification event is recorded in the operation log.

## 1.29 Expired Email Processing Function

Function Number: FR-29

Description: The system automatically processes expired emails according to the email retention policy, executing deletion or archiving operations.

Input: Email lifecycle management parameters (retention policy, execution mode, processing time window).

Output: Expired emails are processed according to the policy, storage statistics are updated, and the processing details are recorded in the operation log.

## 1.30 Email Restore Operation Record Viewing Function

Function Number: FR-30

Description: Users can view email restore operation records through the security center. The system displays detailed information about restore events.

Input: Restore record query parameters (time range, operation type, target path, associated backup ID).

Output: Restore operation records are displayed in reverse chronological order, the details panel fully presents the information, and export files are generated.

## 1.31 Email Archiving Policy Conflict Detection Function

Function Number: FR-31

Description: The system detects and handles conflicting policies during archiving policy management to ensure the uniqueness and validity of archiving rules.

Input: Archiving policy configuration parameters (name, matching conditions, execution actions).

Output: Conflict policy prompts, automatic optimization suggestions, and conflict handling events recorded in the operation log.

## 1.32 Email Archiving Path Management Function

Function Number: FR-32

Description: Users can create, modify, and delete archiving paths through the folder management interface. The system validates path legality and updates storage policies.

Input: Archiving path management parameters (path name, parent path, access permissions, storage capacity).

Output: Archiving paths are updated in the database, email storage paths are synchronously adjusted, and changes are recorded in the operation log.

## 1.33 Email Archiving Policy Testing Function

Function Number: FR-33

Description: Administrators can test the effectiveness of archiving policies through the policy management interface. The system provides examples of matching emails and estimated impacts.

Input: Archiving policy testing parameters (policy name, matching conditions, execution actions).

Output: Test results display a list of matching emails and the scope of impact, and the test event is recorded in the operation log.

## 1.34 Email Archiving Policy Conflict Resolution Function

Function Number: FR-34

Description: The system provides conflict resolution mechanisms when detecting archiving policy conflicts to ensure the priority and logical correctness of policies.

Input: Conflict policy detection results (policy name, matching conditions, execution actions).

Output: Conflict resolution suggestions, policy priority adjustments, and conflict handling events recorded in the operation log.

## 1.35 Email Archiving Policy Activation Function

Function Number: FR-35

Description: Administrators can activate archiving policies through the policy management interface. The system immediately executes the first round of archiving matching operations.

Input: Archiving policy activation parameters (policy name, matching conditions, execution actions).

Output: The archiving policy is activated and executed for matching, and the activation event is recorded in the operation log.

## 1.36 Email Backup Log Viewing Function

Function Number: FR-36

Description: Users can view backup logs through the backup management interface. The system displays records of backup and restore operations.

Input: Backup log query parameters (time range, operation type, status filtering, keyword search).

Output: Backup log entries that meet the conditions are displayed in reverse chronological order, operation details are fully presented, and export files are generated.

## 1.37 Email Backup File Parsing Function

Function Number: FR-37

Description: The system parses the contents of backup files during email restore operations and generates a tree structure of email directories.

Input: Backup file parsing parameters (file path, decryption key, format validation).

Output: The tree structure of email directories is displayed, email data is restorable, and the parsing event is recorded in the operation log.

## 1.38 Email Backup File Restore Function

Function Number: FR-38

Description: Users can select the restore scope and execute email restore operations through the backup file restore interface.

Input: Restore scope selection parameters (folder, search conditions, email entries).

Output: Emails are restored to the specified location, the original backup file is retained, and the restore event is recorded in the operation log.

## 1.39 Email Backup File Conflict Handling Function

Function Number: FR-39

Description: The system detects and handles email conflicts during the restore process, providing options to overwrite, skip, or rename.

Input: Email conflict detection parameters (email ID, target path, conflict resolution rules).

Output: The conflict emails are processed, the restore progress is updated, and the conflict handling event is recorded in the operation log.

## 1.40 Email Backup File Export Function

Function Number: FR-40

Description: Users can export backup files through the backup management interface. The system generates files in the specified format.

Input: Backup file export parameters (time range, backup type, export format).

Output: Backup files are exported to local or cloud storage, and the export event is recorded in the operation log.