Functional Requirement

## 1.1 Email Account Creation Function

Function Number: FR-01

Description: Administrators can create new email accounts. The system needs to verify the uniqueness of the email name and the validity of the distribution group, and assign the email to the specified distribution group.

Input: Email name (string), associated distribution group (distribution group ID), email capacity (number), shared account permissions (boolean or permission level).

Output: New email account (including fields such as email ID, name, associated distribution group, capacity, creation time, etc.) and a prompt message indicating successful email account creation.

## 1.2 Email Management Function

Function Number: FR-02

Description: Administrators can perform operations such as modifying, deleting, and viewing existing email accounts, and synchronously update their associated distribution groups and permission configurations.

Input: Email ID, modification content (such as email capacity, associated distribution group, shared account permissions, etc.).

Output: The updated status of the email information, log records, and a prompt message indicating successful email management.

## 1.3 Email Deletion Function

Function Number: FR-03

Description: Administrators can delete specified emails and clear all related emails, tasks, reminders, and other data, or archive them according to the archiving policy.

Input: Email ID, whether to disassociate shared accounts, whether to perform archiving operations.

Output: The status of the email after deletion or archiving, log records, and a prompt message indicating successful email deletion.

## 1.4 Shared Account Creation Function

Function Number: FR-04

Description: Administrators can create shared accounts, associate them with specified emails, and set access permissions and assign distribution groups.

Input: Shared account name (string), associated email (email ID), shared permissions (read-only/writable), assigned distribution group (distribution group ID).

Output: Shared account information (including fields such as shared account ID, name, permissions, distribution group, etc.) and a prompt message indicating successful shared account creation.

## 1.5 Shared Account Management Function

Function Number: FR-05

Description: Administrators can modify, delete, or view shared account information and synchronously update the configuration of the associated email and distribution group.

Input: Shared account ID, modification content (such as associated email, permissions, distribution group, etc.).

Output: The updated status of the shared account information, log records, and a prompt message indicating successful shared account management.

## 1.6 Shared Account Deletion Function

Function Number: FR-06

Description: Administrators can delete shared accounts, disassociate them from emails, and clear related permission configurations.

Input: Shared account ID, whether to disassociate references, whether to perform backup operations.

Output: The status of the shared account after deletion, log records, and a prompt message indicating successful shared account deletion.

## 1.7 Email Sending Function

Function Number: FR-07

Description: Contacts can send emails to specified emails or distribution groups. The system needs to verify the validity of the recipient's email or distribution group and record email flow information.

Input: Recipient email or distribution group ID, email subject (string), email body (string), attachments (optional).

Output: Sent email (including fields such as email ID, sender, recipient, send time, etc.), send log records, and a prompt message indicating successful email sending.

## 1.8 Email Receiving Function

Function Number: FR-08

Description: Contacts can receive emails and store them in the inbox. The system needs to verify the email format and check if there are any embedded reminder tasks.

Input: External email data (including sender, recipient, subject, body, attachments, etc.).

Output: Received email (including fields such as email ID, sender, recipient, receive time, etc.), updated email flow status, log records, and a prompt message indicating successful email reception.

## 1.9 Email Formatting Function

Function Number: FR-09

Description: Administrators can modify the content and format of emails. The system needs to verify administrator permissions and record the formatting operation log.

Input: Email ID, formatting settings (such as font, layout, attachment storage method, etc.).

Output: Formatted email content, updated email flow status, log records, and a prompt message indicating successful email formatting.

## 1.10 Email Search Function

Function Number: FR-10

Description: Users can search for emails based on conditions such as sender, recipient, subject, date range, keywords, etc.

Input: Search conditions (such as sender, recipient, subject, date, keywords, etc.).

Output: List of emails that meet the conditions, log records, and a prompt message indicating the completion of the search.

## 1.11 Email Folder Management Function

Function Number: FR-11

Description: Users can create, rename, delete, and move email folders and classify emails into specified folders.

Input: Operation type (create/rename/delete/move), folder name, target email, email ID (optional).

Output: The updated status of the email folder structure, updated email flow information, log records, and a prompt message indicating successful operation.

## 1.12 Email Archiving Function

Function Number: FR-12

Description: Users can archive emails to specified folders based on filtering conditions or automatically archive them according to archiving policies.

Input: Filtering conditions (such as sender, recipient, subject, date, etc.), archiving target (folder ID or archiving policy ID).

Output: Archived emails, execution status of the archiving policy, log records, and a prompt message indicating the completion of archiving.

## 1.13 Archived Email Deletion Function

Function Number: FR-13

Description: Users can delete archived emails and decide whether to back up the data before deletion based on the backup recovery policy.

Input: Archived email ID, whether to perform backup operations.

Output: The status of the archived email after deletion, log records, and a prompt message indicating the completion of deletion.

## 1.14 Archived Email Viewing Function

Function Number: FR-14

Description: Users can view the content of archived emails, including the body, attachments, sender, recipient, archiving time, etc.

Input: Archived email ID, email ID (if cross-email viewing is required).

Output: Detailed email content, log records, and a prompt message indicating the completion of viewing.

## 1.15 Reminder Task Setting Function

Function Number: FR-15

Description: Users can set reminder tasks for specific emails or calendar events. The system needs to support multiple reminder methods (such as pop-up, email, SMS, etc.).

Input: Email ID or calendar event ID, reminder time (timestamp), reminder method, reminder object (such as oneself, distribution group, etc.).

Output: Reminder task information (including fields such as task ID, trigger conditions, reminder method, etc.), log records, and a prompt message indicating the completion of settings.

## 1.16 Reminder Task Management Function

Function Number: FR-16

Description: Users can modify, delete, or view reminder tasks and synchronously update the status of associated emails or calendar events.

Input: Reminder task ID, modification content (such as reminder time, method, object, etc.).

Output: The updated status of the reminder task, log records, and a prompt message indicating the completion of management.

## 1.17 Reminder Task Deletion Function

Function Number: FR-17

Description: Users can delete specified reminder tasks and disassociate them from emails or calendar events.

Input: Reminder task ID, whether to perform backup operations.

Output: The status of the reminder task after deletion, log records, and a prompt message indicating the completion of deletion.

## 1.18 Contact Addition Function

Function Number: FR-18

Description: Administrators can add new contacts and assign them to specified distribution groups.

Input: Contact name, email address, distribution group ID, contact phone number, address, notes.

Output: New contact information (including fields such as contact ID, email, distribution group, etc.), updated distribution group members, log records, and a prompt message indicating the completion of addition.

## 1.19 Contact Management Function

Function Number: FR-19

Description: Administrators can modify, delete, or transfer contact information and synchronously update the distribution group member list.

Input: Contact ID, modification content (such as email address, distribution group, etc.).

Output: The updated status of the contact information, updated distribution group members, log records, and a prompt message indicating the completion of management.

## 1.20 Contact Deletion Function

Function Number: FR-20

Description: Administrators can delete specified contacts and disassociate them from other data entities.

Input: Contact ID, whether to disassociate references, whether to perform backup operations.

Output: The status of the contact after deletion, log records, and a prompt message indicating the completion of deletion.

## 1.21 Distribution Group Creation Function

Function Number: FR-21

Description: Administrators can create new distribution groups and add initial members.

Input: Distribution group name, description, list of contact IDs.

Output: New distribution group information (including fields such as distribution group ID, name, member list, etc.), log records, and a prompt message indicating the completion of creation.

## 1.22 Distribution Group Management Function

Function Number: FR-22

Description: Administrators can modify, delete, or add members to distribution groups and synchronously update associated data such as emails and shared accounts.

Input: Distribution group ID, operation type (modify/delete/add members), modification content (such as name, description, list of member IDs, etc.).

Output: The updated status of the distribution group information, synchronized update of associated data, log records, and a prompt message indicating the completion of management.

## 1.23 Distribution Group Deletion Function

Function Number: FR-23

Description: Administrators can delete specified distribution groups and disassociate them from other data entities.

Input: Distribution group ID, whether to disassociate references, whether to perform backup operations.

Output: The status of the distribution group after deletion, log records, and a prompt message indicating the completion of deletion.

## 1.24 Email Flow Capture Function

Function Number: FR-24

Description: Administrators can set email flow capture rules and monitor the sending and receiving of emails in real time.

Input: Email ID, capture time period, email type, whether to record attachments.

Output: Email flow records (including fields such as email ID, send time, receive time, status, etc.), log records, and a prompt message indicating the successful start of capture.

## 1.25 Email Flow Management Function

Function Number: FR-25

Description: Administrators can view, edit, start, stop, or export email flow records.

Input: Email flow ID, operation type (view/edit/start/stop/export), modification rule content (such as time range, email type, etc.).

Output: Updated email flow status, email flow data export result, log records, and a prompt message indicating the completion of management.

## 1.26 Backup Execution Function

Function Number: FR-26

Description: Administrators can perform backup operations, supporting the backup of data entities such as emails, contacts, shared accounts, etc.

Input: Backup type (email/contacts/shared accounts), backup method (full/incremental), backup path, backup time.

Output: Backup file (including fields such as backup ID, backup time, backup type, etc.), log records, and a prompt message indicating the completion of backup.

## 1.27 Data Recovery Function

Function Number: FR-27

Description: Administrators can restore data based on backup files or time points and update related data entities.

Input: Backup file ID or recovery time point, recovery data type (email/contacts/shared accounts, etc.).

Output: Restored data entities, recovery log records, and a prompt message indicating the completion of recovery.

## 1.28 Log Viewing Function

Function Number: FR-28

Description: Administrators can view system operation logs, including email management logs, email flow logs, backup recovery logs, etc.

Input: Filter conditions (such as time range, operation type, operator, etc.), log ID (if viewing specific records).

Output: List of log records, log details (including fields such as operation time, type, object, status, etc.), log export result (if applicable), and a prompt message indicating the completion of viewing.

## 1.29 Administrator Permission Management Function

Function Number: FR-29

Description: Administrators can manage the permission configurations of other administrators, including assigning, modifying, and deleting permissions.

Input: Administrator ID, permission type (email management/distribution group management/shared account management, etc.), permission level (writable/read-only, etc.).

Output: The updated status of administrator permissions, permission change log records, and a prompt message indicating the completion of management.