LLM Automated Evaluation Results

According to your query requirements, as a requirements review expert, I conducted a detailed evaluation of the provided functional requirements document. The evaluation process strictly followed the rules you specified: first, data entities were identified; second, similar functional requirements were merged to control granularity; then, hallucinated requirements were identified; after that, completeness of references was assessed; and finally, testability was judged. The evaluation standards were based on your provided definitions, and the principle of “slightly strict judgment” was upheld to ensure that no requirement point was missed. The complete evaluation report is as follows.

Step 1: Data Entity Statistics

Data entities refer to the core data objects managed within the system (i.e., business entities stored in the database), excluding external data sources, formats, or interface components mentioned in external interfaces. Based on the functional requirements document, I extracted all unique data entities from functional descriptions and input/output definitions. The list includes 16 entities:

1. Email: involved in sending, receiving, formatting, searching, moving, etc. (FR-01, FR-02, FR-03, FR-04, FR-05, FR-21, FR-22, FR-30, FR-33, FR-39)

2. Contact: involved in adding, managing, importing, exporting, etc. (FR-06, FR-07, FR-08, FR-09)

3. Distribution Group: involved in creation, member management, deletion, etc. (FR-10, FR-11, FR-12)

4. Folder: involved in creation, organization, deletion, etc. (FR-13, FR-14, FR-15)

5. Task: involved in creation, reminder setup, priority adjustment, completion marking, etc. (FR-16, FR-17, FR-18, FR-19, FR-42)

6. Archiving Policy: involved in configuration and auto-execution (FR-20, FR-21, FR-22)

7. Retention Policy: involved in configuration and compliance review (FR-24, FR-34)

8. Encryption Policy: involved in transport encryption configuration (FR-25)

9. Storage Quota: involved in management and monitoring (FR-23, FR-37)

10. Backup Record: involved in full backup and data restore (FR-26, FR-27)

11. Audit Log: involved in query and management (FR-36)

12. Classification Label: involved in label management and application (FR-31, FR-22)

13. Permission Matrix: involved in permission allocation and compliance inspection (FR-29)

14. Server Node: involved in storage capacity and health management (FR-38)

15. Mail Flow Data: involved in capture, analysis, monitoring, etc. (FR-28, FR-32, FR-35, FR-43, FR-45, FR-46, FR-47)

16. Monitoring Log: involved in log recording and backup/recovery (FR-48, FR-49, FR-50)

Step 2: Merge Functional Requirements to Control Granularity

According to your rules:

Rule 1: Merge requirements with the same data entity and same functionality. For example, FR-17 (user sets task reminder) and FR-41 (system sets task reminder) both involve the “Task” entity and its “reminder setting” operation. Therefore, they were merged into “Task Reminder Setting Function (FR-17/41).” Other requirements differ in function and remain independent.

Rule 2: Eliminate general system configuration requirements. The document does not contain general items like “System Preference Settings” or “Multilingual Support,” so none were eliminated.

After merging, the original 50 requirements become 49 (FR-17 and FR-41 merged). This does not affect later evaluation and is noted as “FR-17/41” in the table.

Step 3: Identify Hallucinated Requirements

Judgment criteria: a hallucinated requirement introduces a functional operation involving a data entity that cannot be linked to any existing entity in the system, leading to a disconnected E-R (Entity-Relationship) graph. If the entity can be connected through any valid path (e.g., emails linked to folders, policies applied to emails), it is not considered hallucinated.

Evaluation summary: all data entities are connected through the system’s core architecture (mail flow and user operations). For example:

Email entities are linked to folders, tasks, policies, etc.

Policy entities (such as archiving policies) apply to emails.

Monitoring log entities are linked to mail flow data.

The E-R graph remains weakly connected with no isolated entities. Therefore, there are no hallucinated requirements.

The specific justification for each requirement is detailed in the “Judgment Reason” column of the table, all marked “No.”

Functional Requirement Evaluation Table

The following table contains all 49 functional requirements (after merging). The columns are:

Functional Requirement｜Hallucinated Requirement｜Judgment Reason

FR-01: Email Sending Function｜No｜Email is a core entity, functionality aligns with the sending module, input and output boundaries are clear, logically coherent

FR-02: Email Receiving Function｜No｜Email is a core entity, function matches the reception process, input and output are clearly defined, system behavior is consistent

FR-03: Email Formatting Function｜No｜Email data structure is stable, function targets display logic processing, behavioral description is reasonable

FR-04: Email Search Function｜No｜Query operation is based on existing email entities, logic path is complete, no cross-module errors

FR-05: Email Move Function｜No｜Involves movement between emails and folders, behavioral boundaries are clear, target action is reasonable

FR-06: Contact Add Function｜No｜Contact is an independent entity, the add process aligns with system roles

FR-07: Contact Management Function｜No｜Edit operation is based on existing contact entity, behavior path is reasonable with no exceptions

FR-08: Address Book Import Function｜No｜Import process corresponds to contact data introduction, boundary is clear, no redundant dependencies

FR-09: Contact Export Function｜No｜Export action is based on existing contact structure, logic does not rely on email metadata, clearly defined

FR-10: Distribution Group Creation Function｜No｜Distribution group is a valid entity, creation path is clear, behavior matches group model

FR-11: Distribution Group Member Management｜No｜Member management is based on existing distribution group structure, process goal is consistent

FR-12: Distribution Group Deletion Function｜No｜Deletion action targets the distribution group structure, logic does not rely on external resources

FR-13: Folder Creation Function｜No｜Folder structure is independent, creation behavior unit is clear, process is enclosed

FR-14: Folder Organization Function｜No｜Organization is an internal structural operation, no cross-domain references, concise behavior

FR-15: Folder Deletion Function｜No｜Action affects existing structure, operation boundary is clear, definition is sufficient

FR-16: Task Creation Function｜No｜Task entity is complete, creation behavior includes trigger and record points

FR-17/41: Task Reminder Setting Function｜No｜Reminder logic fits task structure, behavioral goal is clear without ambiguity

FR-18: Task Priority Adjustment Function｜No｜Adjustment logic acts on task attributes, no external references, logically consistent

FR-19: Task Completion Marking Function｜No｜Completion mark only modifies status field, no dependent impact from archiving policies

FR-20: Email Auto-Archiving Policy Configuration｜No｜Archiving policy is part of the system module, configuration behavior is well-defined

FR-21: Email Archiving Execution｜No｜Archiving operation based on rules and email entity, no cross-domain inconsistency

FR-22: Email Classification Archiving Label Application｜No｜Label is an internal attribute, although archiving trigger conditions are lacking, label application is unaffected

FR-23: Storage Quota Management｜No｜Quota is a system resource field, management action has clear boundary

FR-24: Email Retention Policy Configuration｜No｜Policy configuration is within email lifecycle, operation is independent and clear

FR-25: Email Transport Encryption Policy Configuration｜No｜Policy configuration is independent, logic does not rely on content variation

FR-26: Full Backup Function｜No｜Backup operation is enclosed logic, database snapshot definition is complete

FR-27: Specific Version Data Restore｜No｜Restore logic operates around backup versions, boundary is clear

FR-28: Mail Flow Monitoring Function｜No｜Monitoring logic acts on flow data statistics, controllable logic and clear operational goals

FR-29: Permission Matrix Management｜No｜Permission is part of access control system, matrix structure is fully defined

FR-30: Email Metadata Recording｜No｜Metadata is a property set of emails, recording behavior is cohesive and stable

FR-31: Classification Label Library Management｜No｜Label management is independent operation logic, no external dependencies

FR-32: Mail Flow Capture｜No｜Capture is an internal system process, target aligns with monitoring

FR-33: Email Archive Search｜No｜Archive structure supports query, behavior logic is stable, target is clear

FR-34: Email Retention Compliance Review｜No｜Review report depends on external standards, logic path lacks system-internal support

FR-35: Mail Flow Analysis｜No｜Analysis result is suggestive, output lacks objectively measurable foundation

FR-36: Audit Log Management｜No｜Log is a native system module, operation and storage path are complete

FR-37: Storage Quota Monitoring｜No｜Monitoring behavior focuses on resource field, operation path is clear

FR-38: Server Node Management｜No｜Node structure is an independent entity, behavior does not depend on context extension

FR-39: Mail Flow Processing Engine｜No｜Engine behavior aligns with flow data, function definition is independent

FR-40: Mail Flow Version Control｜No｜Version records based on status change, behavioral logic is reasonable without ambiguity

FR-42: Task Lifecycle Management｜No｜Lifecycle management is part of the task module, behavior is enclosed

FR-43: Mail Flow Integrity Verification｜No｜Verification behavior targets flow data validation path, logic does not rely on external states

FR-44: Task Reminder Engine｜No｜Reminder logic fits task structure, trigger and scheduling relationship is stable

FR-45: Mail Flow Monitoring Data Collection｜No｜Data collection behavior has clear logical goals, process is verifiable

FR-46: Mail Flow Monitoring Visualization｜No｜Output form is graphical interface, definition is subjective, function boundary is uncertain

FR-47: Mail Flow Monitoring Alert｜No｜Alert threshold is a system configuration parameter, behavior is clear

FR-48: Mail Flow Monitoring Log Recording｜No｜Log data structure is clear, behavioral goal is stable

FR-49: Mail Flow Monitoring Data Backup｜No｜Backup is a standard data protection process, boundary is sufficiently defined

FR-50: Mail Flow Monitoring Data Recovery｜No｜Recovery logic corresponds one-to-one with backup records, process is complete without contradiction

Summary

The document involves 16 data entities (as listed above). After merging functional points, there are 49 functional requirements (originally 50, FR-17 and FR-41 merged). There are 0 hallucinated requirements (all entities are connected, E-R graph weakly connected).

The evaluation follows a rigorous but reasonable standard to ensure that each requirement point is independently assessed. FR-09, FR-19, and FR-22 are slightly weak in completeness due to incomplete definition of input/output associations in the document.All other requirements meet the criteria.