项目文档

# Functional Requirement

ID Function Requirement  
CFM-001 Case File Management The system shall provide a centralized dashboard for accessing and updating all case-related information in a single interface.  
CFM-002 Case File Management The dashboard shall display real-time updates on case status, evidence, and suspect details.  
CFM-003 Case File Management The system shall show indicators (e.g., badges, avatars) when other officers are viewing or editing the same case file.  
CFM-004 Case File Management The system shall support scanning and OCR for automatic data entry from physical documents.  
CFM-005 Case File Management The system shall maintain a version history for all case documents, including timestamps and user notes.  
CFM-006 Case File Management The system shall allow designation of an official/final version of a document, with approval from the lead officer.  
CFM-007 Case File Management The system shall provide an instant export option to share case files with legal or finance teams without leaving the platform.  
TMS-001 Task Management The system shall include a task management system with support for task dependencies and a timeline view for workflow tracking.  
TMS-002 Task Management The system shall provide instant notifications for task assignments, comments, or updates.  
TMS-003 Task Management Notifications shall include priority flags (e.g., urgent/standard) to help officers prioritize their work.  
TMS-004 Task Management The system shall include a built-in messaging or task list system that auto-updates and integrates with case files.  
TMS-005 Task Management The system shall allow officers to assign tasks and set priorities within the system.  
ACL-001 Access Control and Permissions The system shall enable granular access controls at the document or section level.  
ACL-002 Access Control and Permissions The system shall implement role-based permissions (e.g., view-only, edit, share).  
ACL-003 Access Control and Permissions The system shall log all access and modifications to case files via audit trail functionality, including who and when.  
ACL-004 Access Control and Permissions The system shall automatically revoke access when user roles or statuses change.  
DCL-001 Document Collaboration The system shall support real-time collaboration features to reduce the need for manual communication to confirm file versions.  
DCL-002 Document Collaboration The system shall allow secure, version-controlled collaboration without exposing entire case files to unauthorized users.  
SRT-001 Search and Retrieval The system shall support keyword, name, location, case type, and date-based searches.  
SRT-002 Search and Retrieval The system shall allow natural language queries (e.g., “Show me all cases assigned to John in the last month”).  
SRT-003 Search and Retrieval The system shall include filtering and sorting options to retrieve relevant case data quickly.

# External Description

## 5.1 Regulatory/Legal Constraints  
  
The system must comply with all relevant national and organizational regulations governing the handling of sensitive case data, including but not limited to:  
  
- \*\*The system shall ensure all data handling and access controls meet the requirements of the Information Technology Act, 2000 (India)\*\*.   
 \*\*ID:\*\* CONSTRAINTS-REGULATORY-001   
 \*\*Rationale:\*\* To ensure legal compliance and avoid penalties for unauthorized access or data breaches.   
 \*\*Source:\*\* Organizational Legal Compliance Policy   
 \*\*Acceptance Criteria:\*\* The system must pass a legal audit confirming adherence to the Information Technology Act, 2000.  
  
- \*\*The system shall implement data encryption and access control mechanisms in line with the organization's cybersecurity policy\*\*.   
 \*\*ID:\*\* CONSTRAINTS-REGULATORY-002   
 \*\*Rationale:\*\* To protect sensitive data from unauthorized access and ensure compliance with internal security standards.   
 \*\*Source:\*\* Internal Cybersecurity Policy   
 \*\*Acceptance Criteria:\*\* The system must provide documentation and test results confirming encryption and access control compliance.  
  
## 5.2 Hardware Constraints  
  
The system must operate within the following hardware limitations and requirements:  
  
- \*\*The system shall support client-side access via desktop computers (Windows/Linux/macOS) and mobile devices (iOS/Android)\*\*.   
 \*\*ID:\*\* CONSTRAINTS-HARDWARE-001   
 \*\*Rationale:\*\* To provide accessibility across all primary devices used by law enforcement officers and administrative staff.   
 \*\*Source:\*\* SRL-5.1   
 \*\*Acceptance Criteria:\*\* The system must be successfully deployed and tested on all supported client devices.  
  
- \*\*The system shall be compatible with cloud-based or on-premises server infrastructures with redundancy for high availability\*\*.   
 \*\*ID:\*\* CONSTRAINTS-HARDWARE-002   
 \*\*Rationale:\*\* To ensure system stability and availability in both scalable and traditional environments.   
 \*\*Source:\*\* SRL-5.1   
 \*\*Acceptance Criteria:\*\* The system must be tested and validated for deployment on both cloud and on-premises infrastructures.  
  
- \*\*The system shall utilize secure, scalable storage solutions for case files, OCR data, and audit logs\*\*.   
 \*\*ID:\*\* CONSTRAINTS-HARDWARE-003   
 \*\*Rationale:\*\* To ensure data integrity and availability as case data grows.   
 \*\*Source:\*\* SRL-5.1   
 \*\*Acceptance Criteria:\*\* Storage capacity must be verified to scale with increasing data volume and maintain performance.  
  
## 5.3 Interface Constraints  
  
The system must adhere to the following interface limitations and integration requirements:  
  
- \*\*The system shall integrate with an existing internal HR or user management system to synchronize user roles and statuses\*\*.   
 \*\*ID:\*\* CONSTRAINTS-INTERFACE-001   
 \*\*Rationale:\*\* To maintain accurate and up-to-date access permissions without manual intervention.   
 \*\*Source:\*\* SRL-2.4   
 \*\*Acceptance Criteria:\*\* Role synchronization must be confirmed through integration testing with the HR system.  
  
- \*\*The system shall integrate with third-party OCR APIs or plugins for document digitization and data entry\*\*.   
 \*\*ID:\*\* CONSTRAINTS-INTERFACE-002   
 \*\*Rationale:\*\* To enable efficient and accurate digitization of physical case documents.   
 \*\*Source:\*\* SRL-5.2   
 \*\*Acceptance Criteria:\*\* OCR integration must be tested for accuracy and performance under typical usage scenarios.  
  
- \*\*The system shall provide an instant export option for secure sharing of case files with legal and finance teams\*\*.   
 \*\*ID:\*\* CONSTRAINTS-INTERFACE-003   
 \*\*Rationale:\*\* To support cross-departmental collaboration without exposing the entire system to external teams.   
 \*\*Source:\*\* FR-7   
 \*\*Acceptance Criteria:\*\* Export functionality must be tested for security, correctness, and ease of use.  
  
- \*\*The system shall integrate with a real-time collaboration framework to support concurrent editing and notifications\*\*.   
 \*\*ID:\*\* CONSTRAINTS-INTERFACE-004   
 \*\*Rationale:\*\* To enable real-time collaboration without exposing case files to unauthorized users.   
 \*\*Source:\*\* SRL-5.2   
 \*\*Acceptance Criteria:\*\* Real-time collaboration must be verified through concurrent user testing and performance benchmarking.  
  
## 5.4 Design and Implementation Constraints  
  
The system must follow the following constraints to ensure maintainability and integration with the existing infrastructure:  
  
- \*\*The system shall be designed for seamless integration with existing tools such as email and shared drives\*\*.   
 \*\*ID:\*\* CONSTRAINTS-DESIGN-001   
 \*\*Rationale:\*\* To minimize disruption to current workflows and maximize adoption.   
 \*\*Source:\*\* NFR-13   
 \*\*Acceptance Criteria:\*\* Integration must be verified through successful data exchange with these tools.  
  
- \*\*The system shall be designed to scale with increased user load or data volume\*\*.   
 \*\*ID:\*\* CONSTRAINTS-DESIGN-002   
 \*\*Rationale:\*\* To ensure the system remains stable and responsive as usage grows.   
 \*\*Source:\*\* NFR-14   
 \*\*Acceptance Criteria:\*\* The system must be tested under simulated high-load scenarios and maintain performance.  
  
- \*\*The system shall not replace the need for physical documentation but must support its digital capture and storage\*\*.   
 \*\*ID:\*\* CONSTRAINTS-DESIGN-003   
 \*\*Rationale:\*\* To comply with organizational procedures and ensure continuity of operations.   
 \*\*Source:\*\* SRL-2.4   
 \*\*Acceptance Criteria:\*\* Physical documentation must remain a valid option, and digital capture must not interfere with existing physical processes.  
  
- \*\*The system shall be developed using a modular architecture to allow for future enhancements and integration\*\*.   
 \*\*ID:\*\* CONSTRAINTS-DESIGN-004   
 \*\*Rationale:\*\* To support future feature additions and reduce development complexity.   
 \*\*Source:\*\* Internal Architectural Policy   
 \*\*Acceptance Criteria:\*\* The system must be reviewed and confirmed as modular in design.  
  
## 5.5 Other Constraints  
  
The following additional constraints apply to the system:  
  
- \*\*The system shall be accessible via standard web browsers (Chrome, Firefox, Edge, Safari) with no requirement for proprietary software\*\*.   
 \*\*ID:\*\* CONSTRAINTS-OTHER-001   
 \*\*Rationale:\*\* To reduce dependency on specific software and ensure broad accessibility.   
 \*\*Source:\*\* SRL-5.2   
 \*\*Acceptance Criteria:\*\* The system must be tested and confirmed as fully functional across all supported browsers.  
  
- \*\*The system shall support a minimum internet connection speed of 10 Mbps for seamless real-time updates and OCR processing\*\*.   
 \*\*ID:\*\* CONSTRAINTS-OTHER-002   
 \*\*Rationale:\*\* To ensure efficient data transmission and real-time collaboration even in remote locations.   
 \*\*Source:\*\* SRL-5.3   
 \*\*Acceptance Criteria:\*\* The system must be tested under 10 Mbps conditions and maintain functionality.  
  
- \*\*The system shall support network latency of less than 200 ms to ensure real-time interaction\*\*.   
 \*\*ID:\*\* CONSTRAINTS-OTHER-003   
 \*\*Rationale:\*\* To ensure smooth and responsive real-time collaboration features.   
 \*\*Source:\*\* SRL-5.3   
 \*\*Acceptance Criteria:\*\* Latency performance must be verified through network stress testing.  
  
- \*\*The system shall support multi-factor authentication (MFA) for sensitive operations\*\*.   
 \*\*ID:\*\* CONSTRAINTS-OTHER-004   
 \*\*Rationale:\*\* To enhance system security and prevent unauthorized access to critical data.   
 \*\*Source:\*\* NFR-16   
 \*\*Acceptance Criteria:\*\* MFA must be implemented and verified in all sensitive user operations.  
  
- \*\*The system shall be developed with minimal changes to current workflows, requiring no extensive training for adoption\*\*.   
 \*\*ID:\*\* CONSTRAINTS-OTHER-005   
 \*\*Rationale:\*\* To reduce resistance to change and ensure rapid adoption.   
 \*\*Source:\*\* NFR-19   
 \*\*Acceptance Criteria:\*\* The system must be reviewed by current users and confirmed as easy to adopt with no major workflow changes.  
  
- \*\*The system shall be integrated with an existing authentication system (e.g., LDAP or Active Directory) for role-based access control\*\*.   
 \*\*ID:\*\* CONSTRAINTS-OTHER-006   
 \*\*Rationale:\*\* To streamline user authentication and access control without duplicating effort.   
 \*\*Source:\*\* NFR-10   
 \*\*Acceptance Criteria:\*\* Authentication integration must be validated with user role assignment and permissions testing.  
  
- \*\*The system shall not expose entire case files during version-controlled collaboration\*\*.   
 \*\*ID:\*\* CONSTRAINTS-OTHER-007   
 \*\*Rationale:\*\* To protect sensitive data from unauthorized access during collaborative editing.   
 \*\*Source:\*\* FR-18   
 \*\*Acceptance Criteria:\*\* The system must be tested to ensure only the necessary sections of a case file are exposed to collaborating users.