

DEVELOPMENT OF SOFTWARE FOR AN INTEGRATED SYSTEM OF MANAGING A LEGAL COMPANY'S INTERACTION WITH CLIENTS

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Анотація. У тезах представлено прототип інтегрованої системи для управління взаємодією юридичного відділу з клієнтами за принципом end-to-end: від первинного звернення до закриття кейсу. Рішення об'єднує модулі прийому запитів (канали комунікації, фіксація потреб і документів), автоматизований розподіл звернень між юристами та ведення кейсу з контрольними точками виконання. Передбачено планування зустрічей через календар і створення посилань для онлайн-зустрічей, а також синхронізацію подій із відповідальними особами. Для захисту конфіденційних даних реалізовано рольовий доступ, журнал аудиту дій і базові політики безпеки. Система формує журнали та звіти за місяць/рік, що дозволяє оцінювати KPI обробки звернень, прострочень і продуктивності. Запропоноване рішення зменшує ручні операції, підвищує прозорість процесу та керованість клієнтських кейсів.

Abstract. This paper presents an MVP of an integrated, end-to-end system for managing a legal department's interaction with clients, from the initial enquiry to case closure. The solution combines an intake module for capturing requests, client details and supporting documents, a case-management workspace with milestones and deadlines, and automated allocation of matters to solicitors based on workload and expertise. Meeting planning is integrated with calendar scheduling and online meeting links, ensuring consistent time coordination and traceability of client communication. To protect sensitive client information, the system implements role-based authorisation, an audit trail of actions and baseline security policies. Monthly and annual reports provide operational visibility and enable KPI evaluation, including processing time,

overdue rates and individual productivity. The proposed approach reduces fragmented tooling and improves accountability and service responsiveness in legal workflows.

1. Introduction

Legal teams in companies process a steady flow of client requests, consultations and ongoing matters. When intake is handled through email threads, messengers and separate spreadsheets, information is duplicated, case ownership becomes ambiguous, and deadlines are missed. Fragmented tools also complicate confidentiality controls, as documents and notes may be stored outside governed repositories. Therefore, integrated automation that unifies intake, case tracking, meeting scheduling and management reporting is essential for consistent service delivery.

2. Aim, object and subject of the study

The aim of the project is to develop software for an integrated system that supports the full cycle of client interaction in a legal department: request intake, assignment to a solicitor, case execution monitoring, meeting planning and reporting. The object of the study is the comprehensive process of interaction between a company's legal department and its clients. The subject is architectural and software solutions for integrating the intake, case-management, calendar/meeting and reporting modules, including API design and security requirements.

3. Business process “from request to case closure” and requirements

The baseline business process begins with the registration of a client request, clarification of the problem statement, and collection of documents, followed by triage, assignment, execution, and closure. Key requirements derived from this process include: unified client and matter registry; structured intake forms and communication history; SLA and deadline tracking; configurable case statuses; task lists and reminders; calendar integration for consultations; and reporting by period, client segment and solicitor. Non-functional requirements focus on usability, traceability, resilience and compliance with confidentiality obligations.

4. System architecture and module integration

The MVP is designed as a modular client-server system with a single data model shared across modules. The intake component collects requests from web forms and

internal channels, normalises them into a standard matter record and attaches files. The allocation service assigns matters to solicitors based on configurable rules (practice area, priority, workload) and supports reassignment with a justification. Case management provides a workspace for milestones, tasks, deadlines, notes, and document versions. Calendar/meeting integration creates events for consultations, links them to matters and synchronises participation. Reporting aggregates operational data for management views, whilst an API layer enables external integrations and future extensions.

5. Security model and auditability

Given the sensitivity of client data, access control is enforced through role-based authorisation with separation of duties. Permissions are defined at the client, matter, and document levels, with support for restricted matters and need-to-know access. Critical actions (viewing, editing, exporting, reassignment, closure) are logged in an immutable audit journal with time stamps and actor identifiers. Baseline security policies include password and session controls, secure file storage, and controlled data export for reporting. These measures increase auditability and reduce the risk of unauthorised disclosure.

6. Reporting and KPI evaluation

The system produces monthly and annual reports on request volume, average processing time, backlog, overdue matters, meeting load and solicitor utilisation. KPI evaluation compares key indicators before and after deployment, focusing on intake-to-assignment time, share of overdue tasks, and productivity per solicitor. Dashboards support drill-down from summary metrics to individual matters, enabling root-cause analysis of delays and workload imbalance. Such reporting supports managerial decisions on staffing, process changes, and service-level optimisation.

7. Conclusions

The developed prototype demonstrates that an integrated end-to-end system can streamline legal workflows by unifying intake, case execution control, calendar coordination and managerial reporting. Role-based security and audit logging provide a foundation for confidentiality and compliance.