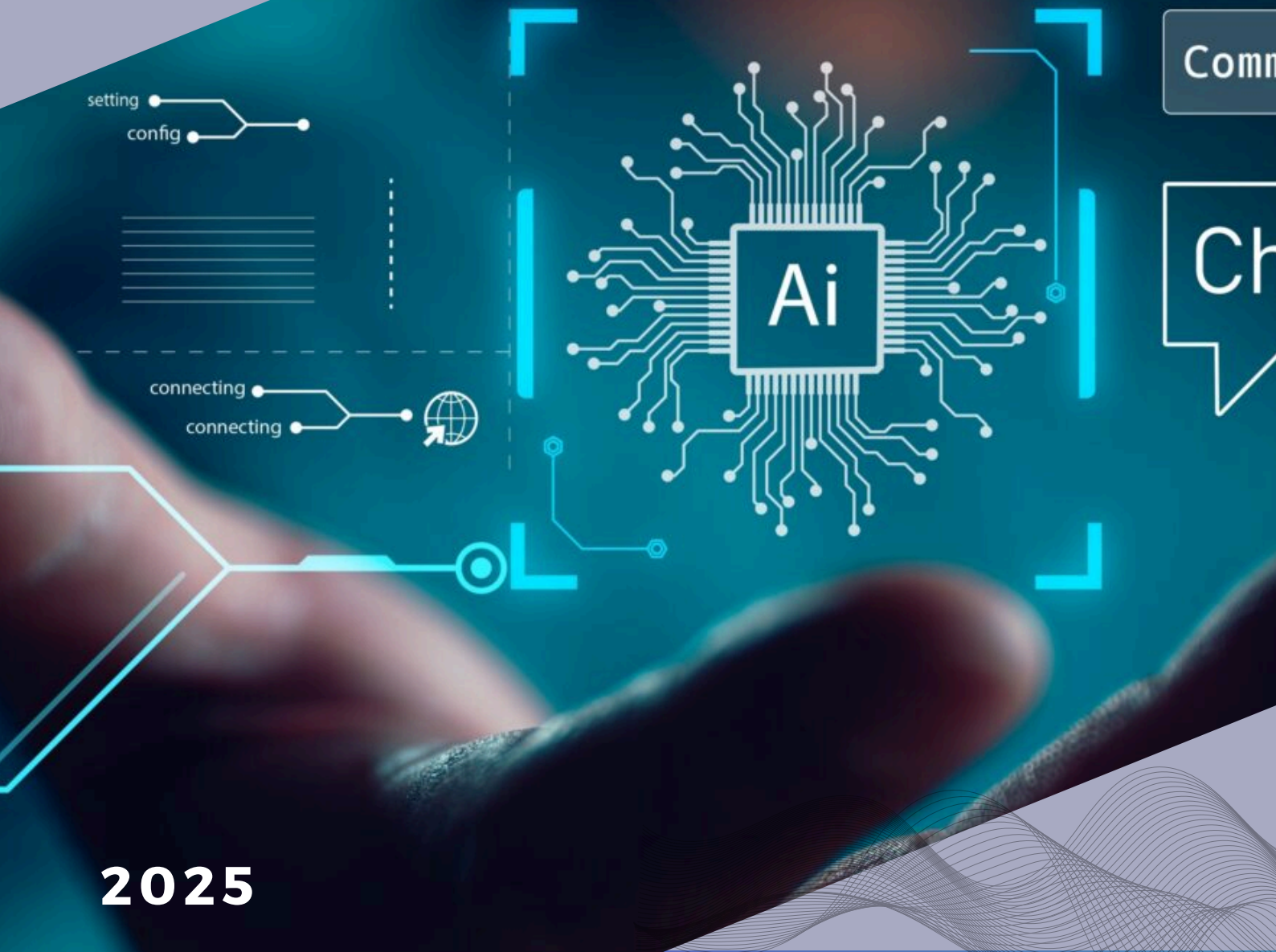# AI SOLUTION FOR LEGALS

AI DEMAND PRO: PERSONAL INJURY ATTORNEY

2025

CUTTING-EDGE TECHNOLOGY TO SIMPLIFY AND STREAMLINE THE DEMAND DRAFT FOR ATTORNEYS WITH ADVANCED ARTIFICIAL INTELLIGENCE (CHATGPT AI MODE) AND AMAZON TEXTRACT INTIGRATION
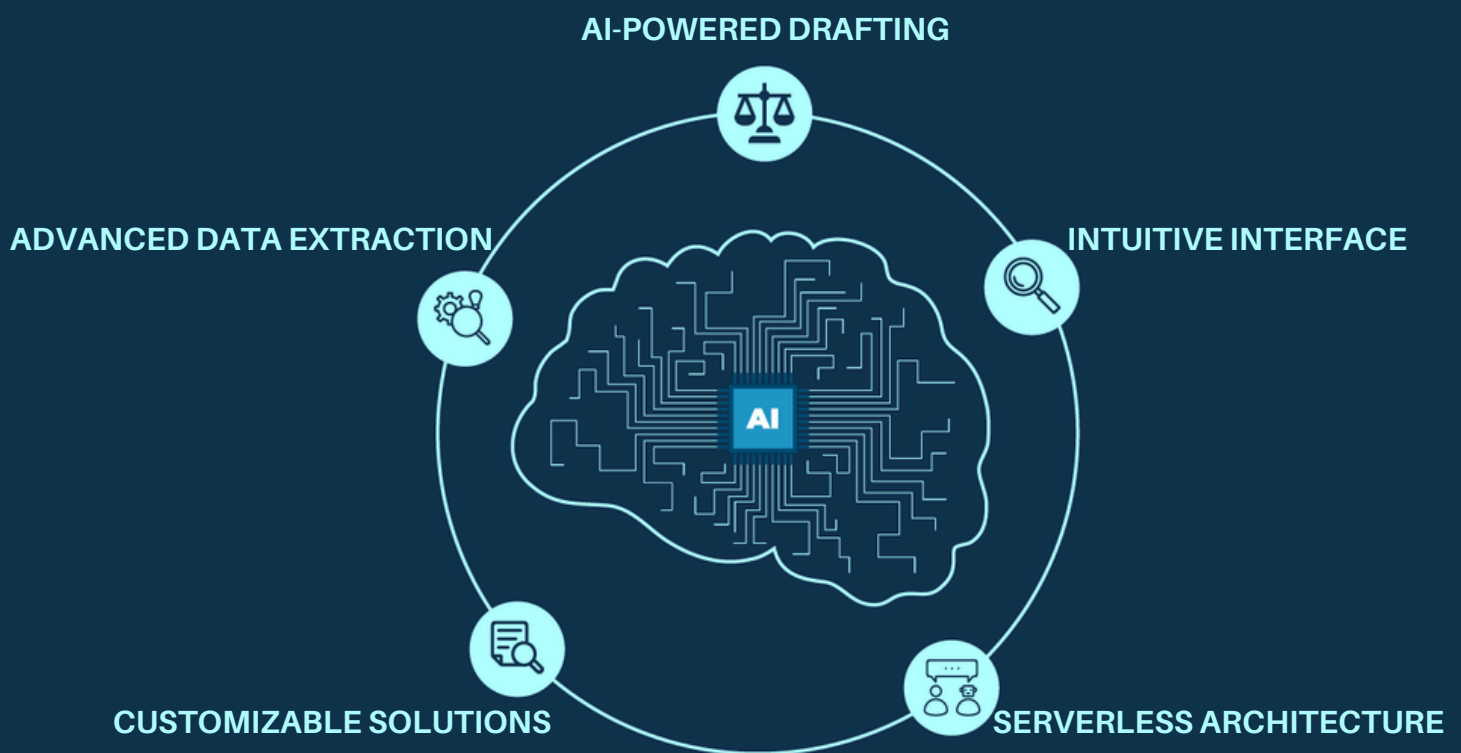
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AUTO-DRAFTING | RESOURCE UTILIZATION | AUTOMATES REPETITIVE TASKS | SEAMLESSLY INTEGRATES

INNOVATIVE PLATFORM DESIGNED TO AUTOMATE AND STREAMLINE THE DEMAND DRAFT CREATION PROCESS FOR PERSONAL INJURY ATTORNEYS USING ADVANCED AI TECHNOLOGIES

The platform is an advanced solution designed to streamline and enhance the demand draft creation process for personal injury attorneys. Leveraging the capabilities of OpenAI's ChatGPT-4 model, the platform processes complex legal language with precision, ensuring each demand draft is both accurate and comprehensive.

Its intuitive interface simplifies data input, allowing attorneys to generate high-quality drafts quickly and efficiently. By automating this traditionally time-intensive task, the platform reduces human error, offers customization for specific cases, and empowers attorneys to improve their workflow and client service.

AI-POWERED DRAFTING

ADVANCED DATA EXTRACTION

INTUITIVE INTERFACE

AI

CUSTOMIZABLE SOLUTIONS

SERVERLESS ARCHITECTURE

APPLICATION DEMONSTRATED SIGNIFICANT IMPROVEMENTS IN LEGAL DOCUMENT PROCESSING EFFICIENCY FOR DRAFTING FROM 6 HOURS TO 10 MINUTES AND TEXT ACCURACY BY 98%

OBJECTIVE

Client specializes in personal injury law, providing legal representation for clients in cases such as auto accidents, wrongful death, premises liability, and more.

The firm focuses on achieving justice and fair compensation for its clients, emphasizing a personalized and compassionate approach to legal services. They are based in Orange County, California, and have over 100 years of combined experience in the field.

So the need of the application was to revolutionize how personal injury attorneys create demand drafts by harnessing cutting-edge AI technologies.

NEEDS ADDRESSED BY THE APPLICATION

- SIMPLIFICATION OF THE DEMAND DRAFT CREATION PROCESS

- REDUCTION IN THE TIME REQUIRED TO GENERATE DRAFTS

- SCALABLE SOLUTION TO MEET THE GROWING DEMAND OF LEGAL FIRMS

- ENHANCED ACCURACY AND CONSISTENCY IN DRAFTS.

- IMPROVED ADAPTABILITY FOR VARIOUS LEGAL SCENARIOS.

- AUTOMATED HANDLING OF LARGE VOLUMES OF CASE DATA.

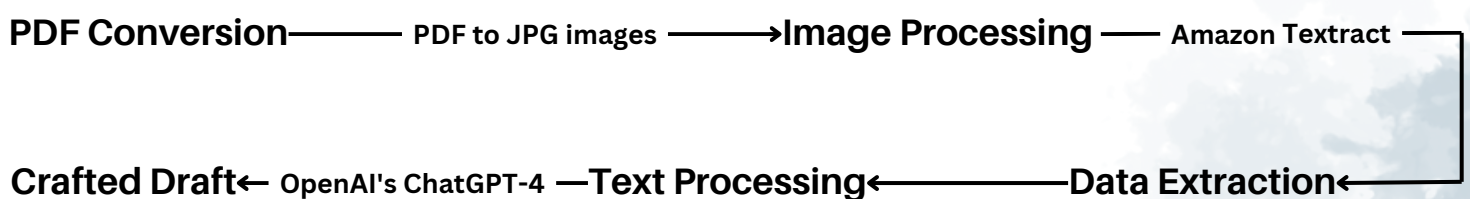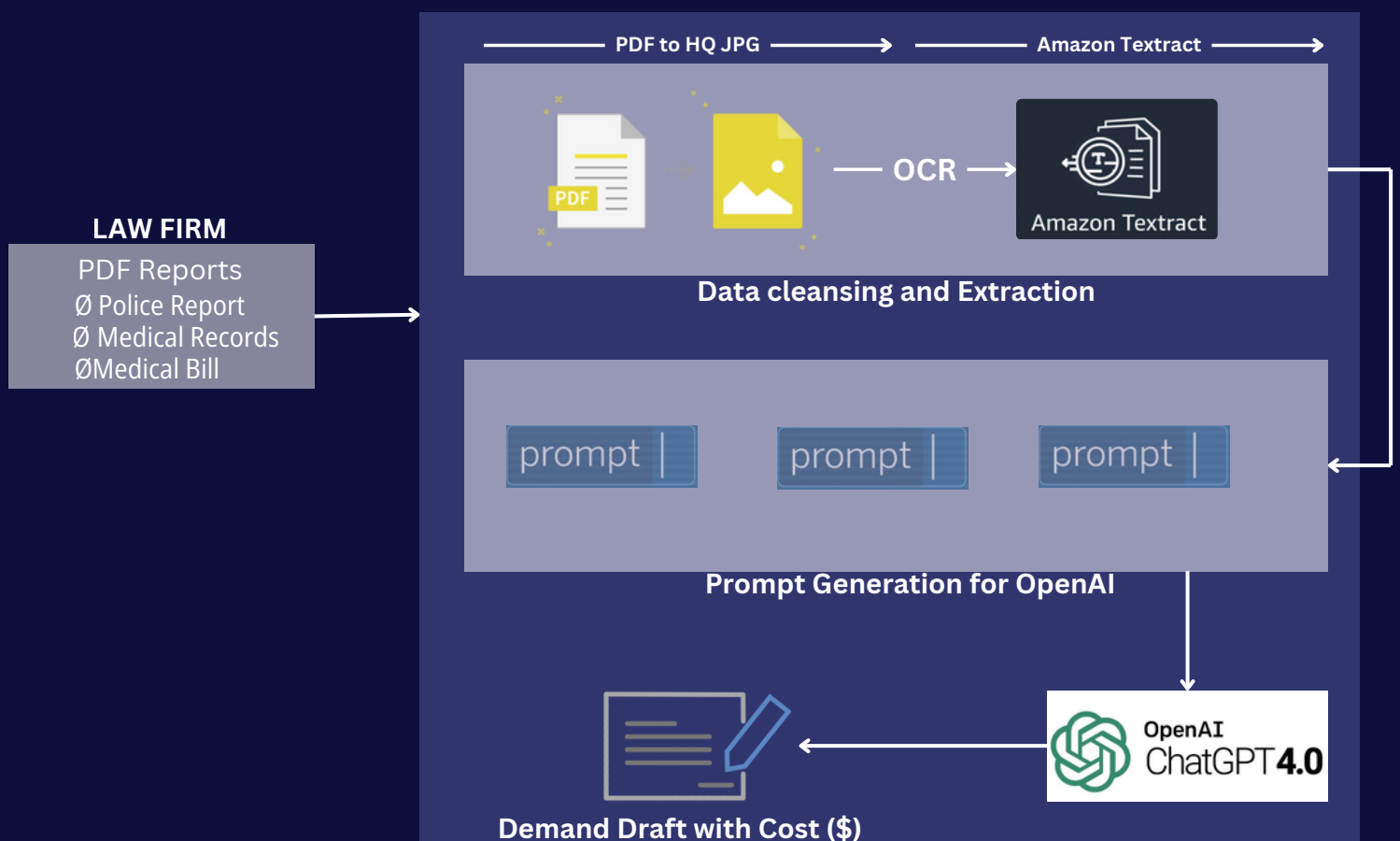- INTEGRATION OF ADVANCED OCR TECHNOLOGY FOR PRECISE DATA EXTRACTION.

According to a 2022 ABA report, 63% of law firms plan to increase their investment in legal tech.

AI adoption in the legal industry is projected to grow by 35% annually from 2023 to 2028.

TECHNOLOGIES

Amazon Textract

LAW FIRM

PDF Reports
Ø Police Report
Ø Medical Records
ØMedical Bill

Data cleansing and Extraction

PDF to HQ JPG   Amazon Textract

OCR   Amazon Textract

prompt | prompt | prompt |

Prompt Generation for OpenAI

OpenAI ChatGPT **4.0**

Demand Draft with Cost ($)

PDF Conversion —— PDF to JPG images —→ **Image Processing** —— Amazon Textract —

Crafted Draft ← OpenAI's ChatGPT-4 — **Text Processing** ← **Data Extraction** ←

APPROACH

The development began with a clear focus on automating the drafting process using agile methodologies to ensure iterative improvements and responsiveness to feedback.

TEAM FIGURED OUT SOLUTIONS AFTER THOROUGH ANALYSIS TO BUILD A SOLUTION WITH A STRUCTURED APPROACH THAT INCLUDES THE FOLLOWING STEPS:

- **ASSESSMENT**: Team conducted a thorough assessment to understand the specific requirements of the application's requirements. This involves interviews with stakeholders, and data analysis to identify the pain points and opportunities for improvement.

- **SOLUTION DESIGN**: Based on the needs assessment, team design an architecture and defined solution that meets the client's specific requirements. Such as selecting the appropriate modules, and software components that will form the basis of the system.

- **DEVELOPMENT**: Developed the application components of the system, including the user interface, database, and integration components. This involves selecting the appropriate development frameworks and tools and following best practices for software development. Agile sprints with continuous testing and feedback loops.

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-Data extraction pipeline utilizing Amazon Textract for OCR capabilities.

-Text processing and structuring with ChatGPT-4 for precise document generation.

-Deployment on AWS serverless architecture for reliability and scalability.

-Integration of multi-tenancy architecture using Amazon DocumentDB for secure client data management.

-Monitoring and logging via AWS CloudWatch to maintain performance.

- **TESTING**: Team conducted rigorous testing to ensure that the system works as intended and that there are no bugs or errors. This involves both functional testing and user acceptance testing to ensure that the system meets the client's requirements and is easy to use.

- **DEPLOYMENT**: Once the testing is complete, the team deploys the system to production. This involves installing the software on the servers and hardware devices and configuring the system to work in the mining environment.

- **SUPPORT AND MAINTENANCE**: We provided ongoing support and maintenance to the system to ensure that it remains stable and secure. This includes regular software updates, bug fixes, and technical support.

SERVERLESS ARCHITECTURES REDUCE OPERATIONAL COSTS BY UP TO 60% COMPARED TO TRADITIONAL SETUPS

CHALLENGES

While developing AI-powered demand draft creation applicaiton team had faced several interconnected challenges. The core technical hurdles included integrating multiple AWS services, managing the ReactJS frontend and NodeJS backend coordination, and implementing a reliable serverless architecture. Document processing presents significant challenges in handling various PDF formats and accurately extracting text, especially with special characters and complex layouts.

The multi-tenancy implementation required careful consideration of data isolation and security, while transitioning to cloud storage demands meticulous planning. AI integration, particularly with ChatGPT, needed sophisticated prompt engineering and consistent API management.

OCR LIMITATIONS: Initially, Tesseract struggled with complex legal formats and special characters, resulting in incomplete extractions.

BATCH PROCESSING INEFFICIENCIES: Processing each image individually was slow and unsuitable for high volumes.

STORAGE CONSTRAINTS: Local file storage was insufficient for the growing volume of PDFs and images.

DATA SECURITY CONCERNS: Ensuring secure handling of sensitive legal information across multiple clients.

SOLUTIONS IMPLEMENTATION

- Migrated to Amazon Textract for robust and accurate OCR capabilities.

- Adopted batch processing to handle large datasets efficiently.

- Transitioned to AWS S3 for scalable and accessible file storage.

- Implemented a multi-tenancy approach with strict access controls and encryption via Amazon DocumentDB.

BUSINESS BENEFITS

The team learnt numerous new skills throughout this project in particular. This platform revolutionized personal injury law practices by automating and streamlining the demand draft creation process. Through its integration of ChatGPT-4, Amazon Textract, and AWS services, the platform dramatically reduces document processing time, minimizes human error, and ensures consistent quality across all legal documents.

This comprehensive solution enabled law firms to handle higher case volumes efficiently while maintaining exceptional accuracy and professional standards.

MAIN FEATURES APPLICATION PROVIDES TO USERS

- REDUCED DRAFTING TIME BY **70%**, ENABLING ATTORNEYS TO FOCUS ON CLIENT ENGAGEMENT.

- IMPROVED DOCUMENT ACCURACY BY **95%** THROUGH AI-DRIVEN AUTOMATION.

- ENHANCED SCALABILITY, ACCOMMODATING A **50%** INCREASE IN DEMAND WITHOUT PERFORMANCE DEGRADATION.

- SIMPLIFIED WORKFLOWS, REDUCING ADMINISTRATIVE BURDEN BY **70%**.

- STRENGTHENED DATA SECURITY WITH ISOLATED TENANT ENVIRONMENTS AND ENCRYPTION.

- INCREASED CLIENT SATISFACTION DUE TO FASTER TURNAROUND TIMES AND HIGHER-QUALITY DRAFTS.

- ENABLED SEAMLESS HANDLING OF DIVERSE LEGAL SCENARIOS WITH ADVANCED CUSTOMIZATION FEATURES.

- LOWERED OPERATIONAL COSTS BY **70%** THROUGH SERVERLESS INFRASTRUCTURE AND AUTOMATED PROCESSES.

IMPACT

Over 1,000 attorneys onboarded within the first year. Processed more than 500,000 legal documents with zero critical errors. Achieved 98% client retention rate, reflecting strong satisfaction.

tech**b**it

**Go Digital
Save Trees**

**Do Innvoative.
ReThink**