OPTI
complexity made simple

How OPTI developed a fair *task distribution* system for the lawyers of Bucharest

CASE STUDY

Industry: Legal Tech
Client: Bucharest Bar Association, Romania
Year: 2022-2023

The Bucharest Bar Association faced significant difficulties with their manual system of distributing tasks to public defenders. The manual system was slow, unreliable, and prone to bias.

To address these issues, in 2022-2023, the Bucharest Bar Association contracted OPTI to develop an automated system capable of distributing tens of thousands of legal representation tasks to more than a thousand lawyers continuosly. The goal was to create a system that was fair, fast, and reliable, offering equal opportunities to all participating defenders.

OPTI developed the software, including the backend, SMS sending, and mobile apps for both iOS and Android. The result is a continuous (day and night) task distribution system that ensures fairness and efficiency.

CHALLENGES

The project presented several challenges, both technical and human.

1. MANUAL DISTRIBUTION SYSTEM

The existing manual system was inefficient and poorly managed, requiring significant improvements.

2. LEGACY ISSUES

Historical problems with task distribution needed to be investigated and clarified before automation could be implemented, such as human bias.

3. FAIRNESS AND ACCEPTANCE

The new system had to be designed to ensure fairness and gain the widespread acceptance of over 1,000 lawyers.

4. SPEED AND RELIABILITY

Some tasks required acceptance within ten minutes, necessitating a fast and reliable tech system to handle these demands, such as mobile apps (iOS and Android).

SOLUTION

OPTI developed an automated task distribution system for the public defenders of Bucharest in eight carefully planned steps.

1. CONSULTATIONS

✓ **Held several open consultations with beneficiaries** (lawyers) to design a fair attribution system.

2. MODELING AND SIMULATION

✓ **Analyzed past data to model and simulate distribution rules** to ensure equitable financial outcomes for all participants.

3. CUSTOM BACKEND

✓ **Developed custom backend software** to handle task introduction, distribution, and response management.

4. SMS AND MOBILE APP INTEGRATION

✓ **Integrated an SMS-provider** for sending & replying to messages and developed also two mobile apps for Android and iOS (used by public defenders).

5. WEBSITE INTEGRATION

✓ **Integrated the system with the official Bar Association website** to allow lawyers to view their distributed tasks.

6. TRAINING AND PRESENTATIONS

✓ **Conducted training sessions for employees** and public presentations of the new system.

7. PILOT PROJECT

✓ **Created a pilot project to test the system** on a limited number of tasks and beneficiaries beforehand.

8. WIDE LAUNCH

✓ **Launched the system widely** with a quick-response period for software maintenance and debugging.

RESULTS

The system went live in two phases, 2022 and 2023, and in 2024, OPTI continues to maintain the solution, ensuring its reliability and speed for the public defenders of Bucharest.

Speed and high availability

Custom programming ensures few loaded dependencies and optimized technologies for speed. Backups ensure high availability.

API integrations

JSON API integrations allow system extension to future SMS/email providers and publish tasks to the public website.

SMS send & reply

Tasks are sent to each lawyer by SMS / mobile app. Refusal triggers the system to attempt other lawyers.

Fairness and equality of outcomes

The system randomly picks lawyers with lower numbers of previous tasks, ensuring fair outcomes per statistical analysis.

Flexibility and preferences

Beneficiaries can choose availability windows and task types without affecting the system's fairness.

Transparency and traceability

The system publishes its data. All messages are kept, along with the justification of each individual choice.

TECHNOLOGIES

PHP, MySQL, memcache, SOAP, JSON REST APIs, Android and iOS.

TESTIMONIAL

"The team of OPTI are notable for their respect for deadlines and for avoiding financial overruns, for the adaptability of their solutions to our needs and for the general quality of their software implementation. We will continue our collaboration to fulfill the needs of the Bar Association in other projects."

– The **Dean** of the Bucharest Bar Association

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OPTI

PRODUCT DEVELOPMENT, AUTOMATION AND DATA MIGRATION

Software company developing products and cutting costs by automations and data migrations. Founded in 2005, with extensive expertise in retail, medical, publishing, and gaming industries.

The OPTI team includes senior analysts and programmers, is ISO 9001 and ISO 27001 certified, HubSpot Solution Partner, Google Cloud Partner and certified in other technological stacks.

CERTIFICATIONS

KNOW-HOW

Frameworks & Languages			
JavaScript	PHP	Python	Java
Rust	C#	React	Angular
Typescript	HTML5		

Databases			
PostgreSQL	Microsoft SQL Server	BigQuery	
Mongo	MySQL	Hadoop	

ERP/CRMs			
HubSpot	Salesforce	FreshSales	Microsoft Dynamics 365
Zoho	Pipedrive	Zendesk	MiniCRM

Server Configuration		
Linux OS	Load Balancers	HTTP Daemons