OPTI

Smarter, Safer, Scalable

AI-Ready Infrastructure for Web, Email and Sales

Bucharest Bar Association, Cartepedia, ART Publishing House, and Art Klett

CASE STUDY

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Industry: Publishing, Legal
Period: July–August 2025
Technology Partners: Cloudflare · Postmark · Google Cloud / Gemini

INTRODUCTION

The project involved multiple **high-profile organizations**: Bucharest Bar Association, Cartepedia, the ART Publishing Group (Art, Arthur, Paladin, Youngart, Grafic, Cartea Românească, Planeta Arthur) and Art Klett (Art Educational).

With thousands of users continuously connected and thousands of e-commerce orders processed each day, these platforms required a **stronger, faster, and more secure digital infrastructure**. **Reliability** was crucial — for the Bar Association, it meant uninterrupted access to sensitive legal documents and instant delivery of notifications, while for the publishing houses and Cartepedia, it meant ensuring that readers could browse, order, and receive confirmations without delays.

The challenge was not just about handling more traffic, but also creating a **foundation to support future AI-driven** capabilities like automated monitoring, traffic scoring, and smart recommendations, including optimizations via Google Gemini.

This project also served as a pilot within OPTI's **AI Sales program** → — the Gemini-integrated architecture with automated quoting and workflows for enterprises with large product catalogs.
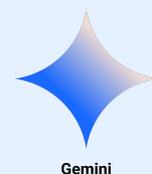
CHALLENGES

As traffic and workloads grew, four key challenges emerged:

1. Scalability

Thousands of users and orders per day needed systems that could scale without slowing down.

2. Security

Sensitive data (legal documents, orders, transactions) required increased security, stronger protections, and multi-factor authentication.

3. Reliable communication

Critical email messages (legal delegations, signed documents, order confirmations) had to arrive instantly, not minutes (or hours) later.

4. Future readiness

The infrastructure needed to be prepared for AI-driven workflows such as **automated traffic scoring, recommendations, and monitoring.**

SOLUTION
FROM IDEA TO DELIVERY IN 5 WEEKS

To meet these challenges, OPTI delivered a robust, AI-ready infrastructure in just 5 weeks, focusing on speed, security, and reliability.

1. Stronger Edge Security & Faster Websites

OPTI upgraded the infrastructure with Cloudflare for faster, more secure web services, blocking attacks, and serving most traffic directly from the edge.

2. Reliable Email Delivery

Premium service Postmark was introduced to ensure near-instant email delivery, with critical messages reaching inboxes in under a minute.

3. AI-Assisted Optimization

Using Google Gemini, we optimized caching and routing based on real traffic, while automated tests keep core user flows stable.

4. Infrastructure updates

To support growth, we also doubled server storage and rolled out two-factor authentication (2FA) in sensitive areas, giving end users both speed and security.

SECURITY AND DATA PROTECTION

Living up to ISO 9001 and ISO 27001 standards, the upgrade was designed with security in mind, from end-user level to disaster recovery runbook.

Frontend Security
2FA and Cloudflare WAF

Email Security
SPF / DKIM / DMARC

CI/CD Security
Secrets / Autodeploy

Observability
Logging, alerting

Backup & Disaster Recovery
Runbooks, procedures

A WORD FROM THE TEAM

"The infrastructure upgrade was a race against time. We took advantage of the general VAT rate change to prepare everything beforehand and upgrade myriad systems over the weekend of 1-3 August. But it was a technical success."

— Lucian Cârlogea, Lead Software Engineer

RESULTS
(7-14 DAYS AFTER GO-LIVE)

Faster, Safer Websites

Up to 95% of traffic served directly from Cloudflare's edge, keeping sites fast and stable.

AI-Optimized Performance

30–50% faster frontend but also backend performance, improving daily workflows for all.

Instant Email Delivery

Near-instant email delivery at over 99%, ensuring lawyers and customers receive critical updates without delay.

Scalable Infrastructure

Stronger security with multi-factor authentication and reinforced SPF/DKIM/DMARC. Number of spoofing incidents went to 0.

TESTIMONIAL

"OPTI are always fast, also always prepared and friendly in discussing things in detail. After the upgrade we finally saw email confirmations arriving in under a minute consistently."
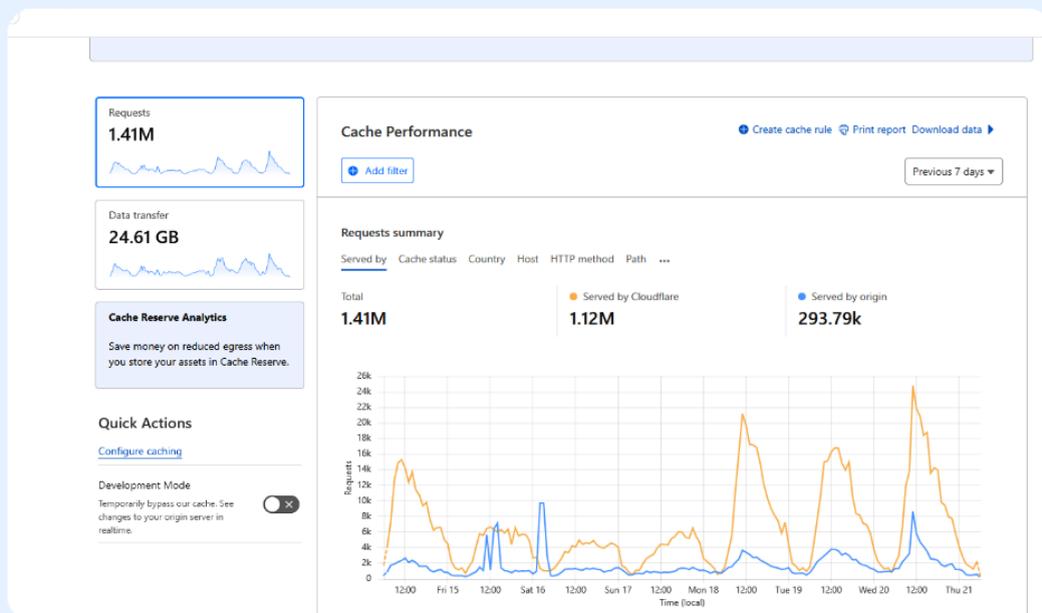
— Dan Zaharia, IT Manager, Bucharest Bar Association

Want infrastructure that scales as fast as your business? [Let's talk](#) ➤

Emails are split into clear streams (notifications, delegations, documents, newsletters), ensuring critical messages arrive instantly while marketing stays separate.

Cache Performance for one of the web platforms
In one week: 1.41M requests, 79% served from Cloudflare cache. Faster pages, less load on servers.

Cache Performance – ecommerce portal
Scale-up: 7.21M requests, 95% served from cache. Almost everything delivered instantly, servers stay light.
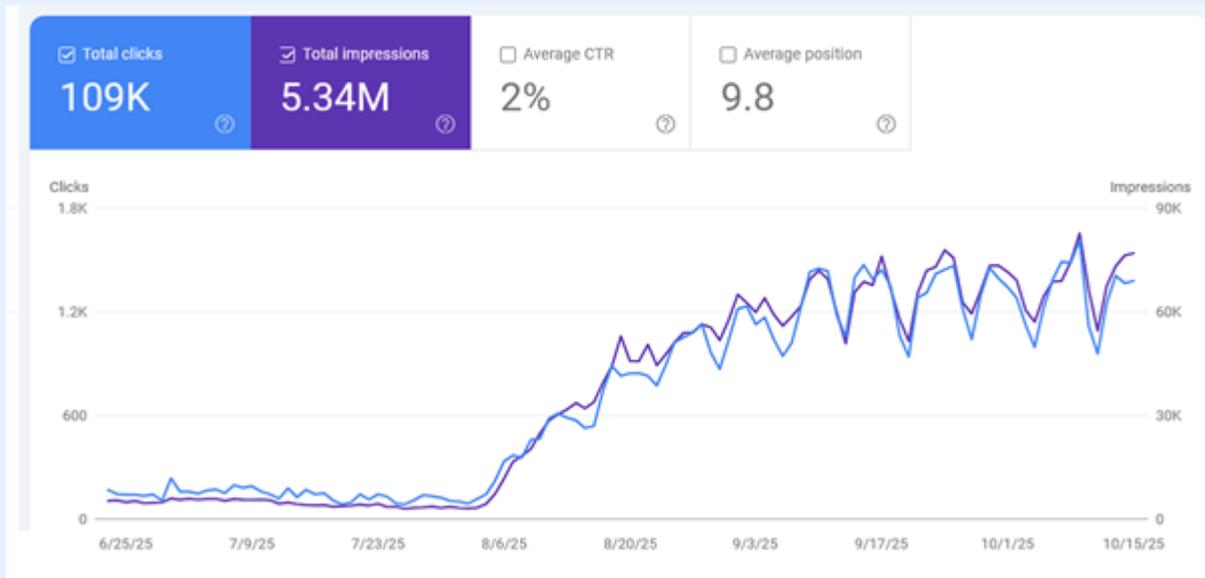
Google Search Console impressions – ecommerce portal
Scale-up: From < 200 clicks, <5000 impressions / day to >1200, >75,000 impressions /day.

TECH AND METHODOLOGY

Services: Server admin, DevOps, Backend Dev, Security Audit

Tech: CloudFlare, Postmark, Google Gemini, Google Analytics, Search Console, Firebase, React, PHP, Yii Framework, Sphinx Search Server, MySQL, Sentry, Bugbug.

Standards: ISO 9001, ISO 27001, NIS2 roadmap.

CLOUDFLARE

Postmark

Gemini

Horizontal scaling

Increasing traffic cannot create an accelerated depletion of resources.

Separation of concerns

Separate services by business function. Choose best tech for each concern.

Data Driven design

For projects with historical data, extract patterns, flows with AI

READ MORE

⇒ See **AI Sales Platform** ➤, using the infrastructure model for companies with large ERP catalog and multi-channel sales.

⇒ See **Infrastructure and Cybersecurity** ➤, certifications and services.

⇒ See **Data Processing in Google Cloud** ➤, detailing OPTI's expertise

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OPTI Software

Focus on Business Processes & Automation!

OPTI builds software, AI agents, and HubSpot integrations on Google Cloud - with DevOps and ISO 27001 certifications.

Founded in 2005, OPTI has a team of senior analysts and programmers, is a HubSpot Solution Partner, Google Cloud Partner and certified in more technological stacks.

CERTIFICATIONS

HubSpot Partner — SOLUTIONS PARTNER PROGRAM · Google Workspace Administrator — GOOGLE CERTIFIED - PROFESSIONAL · ISO 9001 CERTIFIED · ISO 27001 CERTIFIED · Google Cloud Partner

Microsoft CERTIFICATION CRM · Microsoft CERTIFICATION ERP · REVIEWED ON Clutch ★★★★★ 5/5 RATING

KNOW-HOW

Frameworks & Languages			
JS JavaScript	php PHP	Python	Java
Rust	C#	React	Angular
TS 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