



CM Financiera — Intelligent Collections Across Three Simultaneous Channels with CEL-IA

CEL-IA is an AI-powered collections platform that autonomously contacts, negotiates, and records payment commitments across voice, WhatsApp, and email. In 3 months it managed 3,406 clients with a 40% payment conversion rate.

FIELD	VALUE
Client	CM Financiera (CMF) — Panama
Sector	Fintech / Financial Services / Collections Management
Type	Generative AI — Production Deployment
Status	Active in production
Live since	January 15, 2026
Delivery partner	Hypernova Labs
Published case study	https://www.hypernovalabs.com/en/success-stories/cm-financiera-cel-ia

CLIENTS MANAGED	PAYMENT CONVERSION	COLLECTED	PAID WITHIN 7 DAYS	TOTAL INTERACTIONS
3,406	40%	B/. 138K	75%	36,751
June – August 2026	3-month period	June – August 2026	Of those who paid	January – August 2026

01 The Challenge

CM Financiera managed its delinquent portfolio through entirely manual processes: agents dialing number by number, no intelligent prioritization, and a scale ceiling defined by the size of the human team. There was no post-interaction analysis and no unified tracking across channels.

- Manual, one-by-one outreach with no intelligent account prioritization
- Coverage limited by team headcount — unable to scale without proportional cost increase
- No coordinated multi-channel approach: voice, WhatsApp, and email operated in isolation
- No post-call analysis or payment intent tracking
- Manual promise and agreement recording with high error risk
- No unified traceability for regulatory compliance or audit

02 Solution Implemented — CEL-IA



In January 2026, Hypernova Labs deployed **CEL-IA** at CM Financiera. The virtual agent **CELIA** autonomously contacts, negotiates, and records payment commitments across three simultaneous channels: voice (ElevenLabs), WhatsApp (Meta Cloud API), and email (SendGrid). Implementation took 7 months.

Key Capabilities

CAPABILITY	DESCRIPTION
Intelligent Segmentation	AI-driven debtor classification by payment probability, delinquency amount, and contactability — applying the right strategy to each profile automatically.
Autonomous Negotiation	CELIA negotiates within each portfolio's rules (minimum amounts, installments, terms, down payments). Out-of-policy offers are automatically routed to human review.
12 Output Guards	Before sending any message, CEL-IA runs 12 sequential validations: prompt integrity, debtor identity, debt-data confidentiality, out-of-policy commitments, and more.
Post-Call AI Analysis	Every voice call generates a transcript analyzed automatically: agreement, amount, date, installments, tone, and payment intent score. The analyzer is idempotent.
Automatic Commitment Tracking	Promises and payment plans recorded with date validation and textual evidence. Automatic WhatsApp reminders and expiry alerts.
Real-Time KPI Dashboard	Full portfolio visibility: contact rate, conversion, effectiveness, active promises, payment agreements, and financial health — all in real time.
Batch Processing	Up to 5,000 customer accounts processed simultaneously — no proportional cost increase as volume scales.
Human Escalation Routing	Configurable rules route specific scenarios to designated agents by role and channel. Humans handle complex cases only.

03 How CEL-IA Works

Multi-Channel Contact Flow

- **1. Portfolio import:** Operator uploads debtor file (CSV/XLSX) → CEL-IA validates and segments by payment quadrant (Qualified-Payer, Qualified-Non-Payer, Unqualified-Payer, Unqualified-Non-Payer).
- **2. Outbound batch:** Scheduler triggers eligibility filter (3-call/person/day cap) → ElevenLabs voice dial-out to prioritized accounts.
- **3. Call analysis:** ElevenLabs webhook delivers transcript → CEL-IA analyzes intent, agreement, amount, date, and tone.
- **4. WhatsApp handling:** Message received → Meta webhook → 8-second grouping window → CELIA turn with 12 output guards.
- **5. Commitment capture:** Promise or payment plan detected → automatically recorded with date validation and textual evidence.
- **6. Follow-up:** Follow-up scheduled → automatic WhatsApp reminder dispatched → expiry alert if payment not received.
- **7. Human escalation:** Out-of-policy case or anomaly → routed to agent by role → human resolution logged with full audit trail.



75% of customers who paid did so within the first 7 days of being contacted by CELIA. CEL-IA does not replace human judgment — it reserves it for where it matters.

04 Technology Stack

LAYER	TECHNOLOGY	ROLE
Application	Next.js 16.1 · React 19.2 · TypeScript	Platform frontend and API (App Router, standalone output)
Database	PostgreSQL · Prisma 6.19 (117 models)	Multi-tenant data isolation; full audit trail
AI Engine	Anthropic Claude via OpenRouter	Conversation, post-call analysis, intent scoring, decisions
Voice	ElevenLabs Agent API	Outbound calls, transcription via webhook
WhatsApp	Meta Cloud API (Graph)	Inbound/outbound messaging, media handling (Gemini sub-agents)
Email	SendGrid	Inbound parsed as conversation turn; outbound follow-ups
Infrastructure	GCP Cloud Run · Cloud Scheduler · GCS	0–10 auto-scale instances; 6 scheduled jobs; 30-day backups
Cost optimization	Prompt caching (OpenRouter)	Cost per chat turn: ~USD 0.115 → ~USD 0.008 (93% reduction)
Security	JWT · proxy.ts · multi-tenant isolation	Per-request tenant/org/user/role injection and validation

05 Results in Production

The following results correspond to the period June – August 2026, for which CM Financiera has full traceability linking CEL-IA interactions to subsequent payments. Total communications (January 15 – August 2026) exceeded 36,751 across all channels.

METRIC	VALUE	PERIOD
Customer accounts managed	3,406	June – August 2026
Collection interactions	7,200+	June – August 2026
Total payments collected	B/. 138,000	June – August 2026
Payment conversion rate	40% of managed customers	June – August 2026



Rapid response rate	75% paid within 7 days	Of those who paid
Total communications	36,751 automated calls & messages	January 15 – August 2026
Peak batch volume	Up to 5,000 customers simultaneously	Ongoing
Active channels	Voice · WhatsApp · Email	All simultaneous
AI cost per chat turn	~USD 0.008 (with prompt caching)	vs ~USD 0.115 without cache

Operational Before vs. After

AREA	BEFORE CEL-IA	AFTER CEL-IA
Outreach	Manual, one-by-one	Batches of up to 5,000 simultaneously
Prioritization	None — same treatment for all	AI segmentation by payment quadrant
Scale	Limited by headcount	36,751 communications without headcount growth
Channel tracking	Siloed, no unified view	Single inbox per debtor: voice + WhatsApp + email
Commitment recording	Manual, high error risk	Automatic with date validation and evidence
Post-call analysis	None	AI-powered analysis on every call
Human agents	Routine follow-ups all day	Complex cases and escalations only

06 Client Testimonial

"CEL-IA has fundamentally changed how we approach collections. We're reaching more customers, making smarter decisions about engagement, and our team is finally able to focus on the cases that actually need human judgment. The data from June through August speaks for itself: 3,406 customers managed, 40% converting to payment — many of them within the first 7 days. That's the kind of speed and scale we couldn't achieve manually."

— Edwin Ceballos · CM Financiera

07 Project Details

FIELD	VALUE
Development start	June 2025
Go-live date	January 15, 2026



Implementation duration	7 months
Engagement fee	USD \$7,000
Primary contact	Edwin Ceballos · eceballos@cmf.com.pa · (+507) 302-4460
Client website	https://www.cmf.com.pa
Anthropic Org ID	b3dc5cca-56c7-446e-a443-93ea355ac57b (Hypernova Labs)
Published case study (EN)	https://www.hypernovalabs.com/en/success-stories/cm-financiera-cel-ia
Published case study (ES)	https://www.hypernovalabs.com/es/casos-de-exito/cm-financiera-cel-ia

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