

Maksim Lanies

CTO · Backend / AI Architect

21 years in IT 6 people on the team

github.com/mlanies Moscow, Russia

Profile

CTO with 21 years in IT. Ran the IT function for a group of 5 legal entities with a team of 6, including 5 developers: owned architecture, development, infrastructure, information security and budget.

Currently leading the architecture and refactoring of a production CRM platform spanning 517,000 lines of code: retired the core off EOL components, built a regression suite of 1,422 tests, and cut the number of vulnerabilities by more than half. Designed and built the platform's AI layer — an MCP server with multi-tenant isolation and a multi-agent system on LangGraph.

Own products: 2GC CloudBridge — a corporate P2P mesh networking platform in production across three points of presence, currently in pilot talks with a federal telecom operator. 2x2.ceo — a SaaS SEO analytics product with an active customer base.

Specialization: architecture for high-load and distributed systems, pulling legacy platforms out of technical debt, practical LLM integration into product scenarios, networking, DevOps and Kubernetes.

Core competencies

Management & architecture

engineering team management · systems architecture · technical strategy · legacy refactoring · microservice architecture · high load · distributed systems · IT infrastructure management

Languages & platforms

Node.js · Python · Go · Rust · TypeScript · .NET · React · Next.js · NestJS · Playwright · Telegram Bot API

Data & infrastructure

PostgreSQL · MongoDB · Redis · ClickHouse · Kubernetes · Docker · Terraform · CI/CD · Linux · Nginx · Prometheus · Grafana · Cloudflare Workers · Asterisk

AI

LangGraph · MCP · multi-agent systems · RAG · model routing · prompt caching · vLLM · Temporal · Langfuse

Networking & security

QUIC/HTTP3 · MASQUE · WebRTC · WireGuard · BGP/Anycast · Zero Trust · OAuth 2.0/OIDC · JWT · RBAC · SIEM · 152-FZ

Work experience

Backend / AI Architect

June 2026 — present

Smarty CRM — contract

Architecture and technical leadership for refactoring a production CRM platform: a Node.js monolith, roughly 20 microservices, a React SPA, 517,000 lines of code.

- Built a regression suite of 1,422 server-side tests, unblocking risky migrations with no platform downtime
- Closed about 80% of known vulnerabilities: axios, jwt, helmet, SSRF guard, prompt-injection protection for the AI agent. SonarQube vulnerability count cut from 17 to 8, reliability blockers eliminated
- Retired the core off EOL components: mongoose 5→8, mongodb 6, express 5, aws-sdk v3, socket.io 2→4, React 17→18.3 with legacy UI replaced
- Designed and built the AI layer: an MCP server on top of the platform's REST API with multi-tenant isolation and 14 tool domains, plus a multi-agent system on LangGraph — a supervisor and 16 domain agents
- Cut per-conversation cost from $0.12 to $0.02 through model routing and prompt caching
- Laid out a dual-mode architecture: cloud via an AI Gateway and air-gapped on-prem inference on vLLM/SGLang, Temporal, Langfuse — for clients with data isolation requirements
- Delivered the MVP to the client with a PASS acceptance, 11 epics
- Rolled out a planning and reporting system the team adopted as its standard: tasks tied to risks and commits, weekly reporting framed around business value

Node.js · Python · React · MongoDB · LangGraph · MCP · Temporal · vLLM · SonarQube

CTO, Founder

May 2024 — present

Own products (sole proprietor)

2GC CloudBridge — a corporate P2P mesh networking platform

- Designed and shipped to production a distributed system of 8 components across 3 points of presence (Moscow, Frankfurt, Amsterdam)
- Pushed the share of direct P2P connections to 68%, with RTT under 42 ms, throughput up to 1.2 Gbit/s and 99.9% uptime
- Built censorship circumvention on MASQUE and AmneziaWG, a DDoS-protection layer, and an AI traffic-analytics service
- Took the product to pilot talks with a federal telecom operator

Go · Python · TypeScript · QUIC · MASQUE · WebRTC · WireGuard · Kubernetes · Terraform · Prometheus

2x2.ceo — SaaS SEO analytics for small business

- Launched with an active customer base: a site scanner, a BFS crawler, integrations with Google Search Console, Yandex Metrica and Webmaster
- Built an AI recommendations layer with provider routing and response validation via Zod
- Implemented OAuth token encryption (AES-GCM) and compliance with Russia's 152-FZ

Next.js 16 · TypeScript · tRPC · PostgreSQL · Prisma · BullMQ · Redis · Docker

VOLY — an open-source AI agent orchestration platform

Multi-agent pipelines, task routing by role and model, lower token spend through caching and cost tracking.

AdQuest — an ad platform built to replace CAPTCHA

Rust, 7 microservices, 10,000 requests/min, 99.7% bot detection in 10 ms, compliant with Russia's 152-FZ and 38-FZ, integrated with ERIR.

Head of IT

November 2020 — May 2024

TIM 108 LLC, Moscow

Full-cycle strategic and operational IT management for a management company and five affiliated entities: 150+ employees, 12 physical servers and about 50 virtual machines.

- Built and led a team of 6: 5 developers and a systems administrator. Owned hiring, task allocation, code review and the release process
- Owned infrastructure serving 150+ employees: 12 dedicated servers on VMware ESXi and about 50 virtual machines
- Migrated part of the infrastructure from local servers to the cloud, cutting fleet costs and new-service rollout time
- Rolled out SSO and multi-factor authentication for 150+ users, eliminating a whole class of account-compromise incidents
- Deployed a SIEM and a security monitoring system, cutting incident detection time
- Built a unified Help Desk with first- and second-line support and a formal SLA across all divisions
- Raised trust in IT by restructuring responsibilities and improving communication
- Implemented Zero Trust at network edge points, plus an attack- and DDoS-protection stack
- Rolled out a Wiki.js service for internal documentation and an automated system for approving IT spend

Linux · VMware · Kubernetes · Ansible · Wiki.js · SIEM · SSO · Cloudflare Workers, D1, R2, KV

Lead Systems Administrator

February 2018 — October 2020

MEDIA 108 LLC, Moscow

Administered, configured and tested application servers for business and network operations.

- Automated repetitive tasks with PowerShell and Puppet modules
- Managed AWS cloud services: EC2, S3, ALB/NLB, CloudWatch, IAM
- Monitored 1C servers, VMware ESXi 6.x farms and individual project servers
- Maintained standard application and operational documentation, kept software testing lifecycle policy compliance

Windows Server · Linux · VMware ESXi · AWS · PowerShell · Puppet · 1C

Systems Administrator

April 2014 — February 2018

Moscow City SUE "Stroyinvest"

Administered FreeBSD/Linux servers: mail, web, directory services, Zabbix; MS SQL 2008/2012, Exchange 2010, 1C 8.3.

- Networking: routing, VLANs, trunking, ACLs, NAT; D-Link, Cisco, MikroTik, pfSense hardware
- Virtualization on Hyper-V, VMware, KVM; backups with Veeam, Acronis, Synology storage
- Rolled out IP telephony, access control and video surveillance systems, data encryption

FreeBSD · Linux · MS SQL · Exchange · Cisco · MikroTik · VMware · Veeam

Early career

September 2005 — April 2014

TSC "Techno-Trade" · AvtoStar LLC · PodryadComplectStroy LLC,
project-based work, Naberezhnye Chelny

Systems administration and engineering roles: Windows and Linux server infrastructure, local networks, virtualization, 1C, video surveillance, user support. Supported the IT infrastructure of the Mercedes-Benz plant and the KIP "Master" facility in Naberezhnye Chelny.

Selected side projects

- **Wine Bot** — three Telegram bots on Cloudflare Workers with D1 and KV, Google Sheets sync and Web Push jobs every 15 minutes.
- **VOLY AI 1C** — an AI chat assistant extension for 1C:Enterprise that answers over the database and searches ITS methodology.
- **Actionprof AI Bridge** — a Telegram bridge that streams AI answers as they are generated, on Cloudflare Workers with Durable Objects.
- **UMI.CMS ↔ 1C** — an integration of a UMI.CMS website with 1C:Enterprise, with staged export, exchange scripts and a Docker test environment.
- **Asterisk ↔ Bitrix24** — call logging, lead creation and recordings in Bitrix24 CRM through its REST API, without a Voximplant license.
- **Smarty Comms Hub** — a Cloudflare Worker that syncs the CRM, a task tracker and team chats both ways, with a Telegram bot and an AI assistant.
- **Lenza WebRTC Platform** — WebRTC load balancing for media servers with a route to geographic anycast, and a NestJS meeting backend on Janus.
- **Max Autoresponder** — a Python and Playwright autoresponder for a personal messenger account, with replies from an LLM on Cloudflare Workers AI.
- **Gambrinus Menu Trainer** — a PWA for training staff on a restaurant menu.
- **Manual Mode** — an educational factory arcade about lean production, built with TypeScript, Canvas and React.

- **How to Live Better** — an unofficial Russian adaptation of a 681-entry practical guide, published as a static site.
- **AITEHO** — a bilingual marketing website on Hugo and a Telegram agent bot working inside Chatwoot.
- **Sale SEO** — a command-line SEO audit tool that produces a health score and a Russian PDF report.

Education & certificates

Naberezhnye Chelny Institute of Patent Studies — Applied Programming, Programmer-Electronics Engineer — 2000

- "White Hat Hacker" profession track, CyberED on Stepik — 2023 · verify
- Effective IT Leader in Digital Transformation, Kuznitsa Upravlencheskogo Bekgraunda (management training), 120 academic hours — 2023
- **IBM Cybersecurity Analyst Professional Certificate**, Coursera — 2021 · verify. Eight courses, including:
  - Cyber Threat Intelligence · verify
- Ethical Hacking with Metasploit for Beginners, Udemy — 2021 · verify
- 1C:Enterprise 8.3 System Administration, 1C-Education, 48 hours — 2021
- **Google IT Support Professional Certificate**, Coursera — 2020. Five courses:
  - Technical Support Fundamentals · verify
  - The Bits and Bytes of Computer Networking · verify
  - Operating Systems and You: Becoming a Power User · verify
  - System Administration and IT Infrastructure Services · verify
  - IT Security: Defense against the digital dark arts · verify
- CISCO — Internetworking Fundamentals — 2016
- 1C:Document Management 8 for electronic document workflows, 1C Certified Training Center, 24 hours — 2014

Letters of thanks

- Cyberdom JSC — for a security review of its website, addressed to the founder of 2GC CloudBridge — 2025
- FRII Invest LLC — for help with a security review of its web application, addressed to the founder of 2GC CloudBridge
- IT Center of the Kazan Federal University branch in Naberezhnye Chelny — for security testing of the branch's computer systems and networks, load testing and vulnerability search on its websites
- Kazan Federal University branch in Naberezhnye Chelny — to AiTEK LLC, represented by its director, for security testing of the branch's computer systems and networks

- Chelny.info business portal — for penetration testing of chelny.info, tatarstan.net and jomga.ru
- Tatarstan Business Hotel — for finding vulnerabilities in the hotel's website

Languages

Russian — native · English — A1, reads technical documentation