

Daniel Aguayo

Solutions & Platform Architect | AWS, Scalable Systems, IoT

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Languages: Spanish (native), Catalan (native), English (C1)

● Profile

AWS-certified Solutions Architect with nearly three decades turning business needs into scalable, high-availability platforms. A telecommunications engineer who moved into software, I think in systems end to end: from devices and networks through edge, cloud and SaaS to the end user.

- **End-to-end systems thinking:** seeing how the pieces fit together and where they will break, balancing new development, legacy systems, performance and long-term maintainability.
- **Hands-on builder and modernizer:** building products from zero, taking ideas from proofs of concept (PoCs) to production, and modernizing legacy platforms while they kept running.
- **Curious and pragmatic:** proactively exploring new technologies, choosing them based on the problem at hand and documenting decisions through ADRs.
- **Strong communication and stakeholder management:** bridging business and engineering, and aligning product and technical teams around architectural decisions.

● Experience

Head of Software | AKO Group

July 2020 – July 2025 | Sant Pere de Ribes (Barcelona)

Owned the end-to-end architecture of an IoT SaaS platform, taking it from an initial MVP to a professional platform that enabled the company's shift from selling hardware to selling software services. Technical decisions executed by a team of up to 14 people.

- Scaled the platform from 15k to 32k+ connected devices on a Node.js/Express microservices architecture, with device communication over custom MQTT protocols and REST APIs, and Angular frontends built on a shared design system.
- Traffic and integration layer for high availability and secure client access: WAF + ELB with nginx as reverse proxy, CDN caching, a public API with webhooks for client integrations, and permission-scoped data access.
- Microservices communicating through RabbitMQ queues; serverless components (AWS Lambda + API Gateway) for coordination tasks and a URL shortener that reached production; end-to-end observability with OpenTelemetry and Grafana.
- Modernized the data layer as volumes grew: migrated time-series data from MIIMETIQ to TimescaleDB within a hybrid MongoDB + TimescaleDB architecture.
- Applied strategic Domain-Driven Design to map the business domain, which led manufacturing to change industrialization processes and improve product traceability.
- Led the functional and architectural redesign of the IoT gateway firmware with an embedded specialist: containerized processes and remote OS updates with automatic rollback.
- Grew the team from 2 to 14 people across development, systems and QA, including an external software factory; created the SRE function and introduced CI/CD (GitHub Actions, GitLab CI), QA gates and ADRs. Technical lead for a €7M PERTE project, bridging business and engineering.

Independent Product Development | Freelance

2018 – 2020 | Barcelona

- **POLx:** co-built an interaction layer for live online events around the video stream: event-owned chat (web and Telegram), live polls and real-time layout control, with Vue.js and Node-RED, embedded in WordPress. Used by the Agència Catalana de Turisme and sold commercially.
- Designed and developed a community platform where trainers run their own student communities (Angular).

CTO | Infoavisos, S.L. (Grupo Intercom)

January 2005 – July 2018 (13+ years) | Sant Cugat del Vallès

Full technical direction, with hands-on development, of a digital messaging company (SMS, email marketing, mobile push), in a team of three developers.

- **Enterprise SMS platform:** architected mass sending with integrations via HTTP API, email, FTP and file imports, and evolved it for 13 years while launching new products.
- **Montatuapp:** built from zero and led a SaaS that generated native iOS/Android apps from modules configured on the web.
- Moved company services to AWS (2014) and introduced Docker for workload isolation (2017).
- 50+ client projects across fashion, banking, energy, HR and automotive, including mobile apps, intranets and the first iOS/Android apps for iVoox. Hands-on in ColdFusion and AngularJS.

Senior Developer | Tecnic Enginyeria de Software

1999 – 2004 (5 years) | Barcelona

- **Tick Tack Ticket (later acquired by Ticketmaster):** high-availability ticketing and access control systems for major venues and events (Palau Sant Jordi, FIB, Sónar).
- End-to-end delivery of e-commerce solutions and high-traffic web portals, from client requirements to production, with direct client contact.

● Technical Skills

Architecture	Solution and platform architecture, microservices, Domain-Driven Design (strategic), ADRs, legacy modernization
Cloud & DevOps	AWS (EC2, RDS, S3, VPC, Lambda, API Gateway, CloudWatch, SES), Docker, CI/CD (GitHub Actions, GitLab CI), nginx, OpenTelemetry, Grafana
Backend	Node.js, Express, REST APIs, webhooks, MQTT, RabbitMQ/AMQP, serverless, Go (scripting)
Frontend	Angular, Vue.js, design systems
Data	TimescaleDB (PostgreSQL), MongoDB, MySQL

● Education & Certifications

- Technical Engineering in Telecommunications, Telematics | UPC Mataró (2001)
- Industrial Marketing Program | EADA Business School (2022)
- AWS Certified Solutions Architect – Associate (2018)
- AWS Certified Developer – Associate (2018)

● Communication & Teaching

Certified Getting Things Done (GTD) trainer by the David Allen Company (2019), working with organizations such as Intermón Oxfam, Nike Ibérica and Roca. Guest lecturer, Master in Web Projects (Elisava/UPF). Author of Du Tudú, a blog on productivity and GTD (18+ years), and host of the YouTube channel “Equipos sin oficina”.