

TOM MELCHIONNA

Solutions Architect & Principal Engineer

Cloud-Native Systems, API-First Architecture, and AI Infrastructure — Built Hands-On

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Technical leader and platform architect with 15+ years progressing from telecom engineering and global delivery leadership to hands-on design of cloud-native, API-first systems. Builds production systems hands-on as a solutions architect / principal engineer. I know how mega-corps build enterprise-grade, high-availability infrastructure — and I build that same bulletproof foundation for startups, lean and without the overhead.

Fluent across API-first design (OpenAPI), Docker and Kubernetes microservices, Infrastructure-as-Code, PostgreSQL/SQL data architecture, LLM gateway and model-routing infrastructure, and technical governance via architecture decision records. Brings enterprise delivery discipline and measurable outcomes to every layer of the stack.

KEY STRENGTHS

Technical Strategy & Architecture · Fractional CTO / Engineering Leadership · Cloud & Container Architecture · Infrastructure-as-Code · API-First Design (OpenAPI) · Relational Database Architecture (PostgreSQL/SQL) · AI Infrastructure & LLMops · Microservices & Distributed Systems · DevOps & CI/CD Automation · Engineering Governance · System Design & Scalability · Enterprise Delivery & Stakeholder Leadership

TECHNICAL SKILLS

Languages: Go · Python · Rust · JavaScript/TypeScript · SQL

Frontend: React · Vite · Node.js / npm · HTMX

Containers & Orchestration: Docker · Docker Compose · Podman · systemd Quadlet · Kubernetes (Kustomize)

Infrastructure & DevOps: Infrastructure-as-Code · CI/CD Pipelines · Network Policies · Secret & Vulnerability Scanning · SBOM · Observability

APIs & Data: API-First / OpenAPI · REST · PostgreSQL / SQL · Schema Governance · Database Replication

AI Infrastructure: LLM Gateway & Model Routing · LLMops · Self-Hosted Inference · Evaluation Gates

Business Intelligence: KPI Dashboards · Executive Reporting · Forecasting · Operational Analytics

PROFESSIONAL EXPERIENCE

HARDPOINT CORE TECHNOLOGIES, United States (Remote)

01/2025 – Present

Founder & Principal Engineer

Founded and architected a cloud-native, multi-service AI platform, owning end-to-end system design and hands-on implementation across application, data, infrastructure, and AI layers.

- Built a multi-service platform with API-first / contract-first design (OpenAPI) and enforced data contracts across services.
- Architected the relational data layer with SQL schema governance, migration discipline, and read-replica durability across PostgreSQL-compatible tiers.
- Containerized microservices with Docker; authored Kubernetes (Kustomize) manifests and Podman/Quadlet systemd units for reproducible environments.

- Implemented automated CI/CD with secret scanning, dependency/vulnerability scanning, SBOM generation, and API contract-parity checks.
- Designed AI infrastructure: provider-neutral LLM gateway, model-routing policy, and evaluation gates (LLMOps).
- Designed and built AIAO.ROCKS — a control-plane-first AI gateway: schema-first PocketBase data plane, Go execution backend, provider-neutral model routing (OpenRouter / Together / LiteLLM), OpenAPI + Bruno contract verification, and an operator cockpit UI — applying the R.O.C.K.S. framework (Rules, Objectives, Constraints, Knowledge, State).
- Pioneering an early implementation of Google Cloud's open, vendor-neutral Open Knowledge Format (OKF v0.1), building tools and use cases on the spec (markdown + YAML-frontmatter knowledge bundles for AI agents). Independent implementer; not affiliated with Google.
- Established engineering governance: architecture decision records, documentation authority, and tiered API/testing standards.

NiCE, United States (Remote)

04/2026 – Present

Professional Services Engineer

- Partner with enterprise customers and internal teams to deliver CCaaS implementations, integrations, and post-launch success across multi-module deployments.
- Bridge customer requirements with API, integration, and platform design developed through hands-on system architecture work.
- Collaborate with Product, Engineering, and Customer Success to resolve delivery blockers and improve predictability.

VONAGE BUSINESS, United States (Remote)

2014 – 2025

Professional Services Manager

07/2017 – 09/2025

Advanced from supervisor to senior leadership to head the Global Professional Services organization, overseeing \$20M–\$30M in ARR across retail, franchise, municipal, and healthcare deployments.

- Transformed operations through KPI dashboards and continuous improvement frameworks that shaped current business processes.
- Reduced project overruns by 30% and delivery timelines by 33%, driving predictable execution.
- Launched a near-shore Tier 1 provisioning team, boosting project throughput by 25% while achieving 95% CSAT.
- Led enterprise onboarding for high-profile clients in retail, finance, and public safety, managing backlogs, forecasts, and recurring revenue.
- Partnered cross-functionally with Product, Sales, Engineering, and Customer Success, presenting operational insights and business cases to senior leadership.

Professional Services Supervisor

12/2015 – 07/2017

- Spearheaded RFP and vendor selection to launch the company's first outsourced provisioning team, establishing scalable procedures, training frameworks, and operational standards.
- Designed professional services frameworks with Voice, Data, and Project Management teams across Vonage's "Elite" and "Advanced" customer segments.
- Led resolution of high-complexity technical escalations to stabilize accounts and minimize churn.

Voice / Data Provisioner III

09/2014 – 12/2015

- Designed and deployed advanced contact center solutions for multi-site, high-volume environments, integrating SIP trunking, IVR, and third-party platforms.
- Led full project lifecycle from discovery and architecture through implementation.
- Managed 50+ concurrent client deployments at >99% SLA compliance, driving \$100K+ new MRR/quarter.

Customer Service & Support Engineer II

03/2013 – 09/2014

- Resolved 75+ weekly tickets including critical P1 outages in a fast-paced NOC environment.
- Collaborated with LECs and carriers to restore MPLS issues, ensuring 99.99% uptime.

J-CURVE TECHNOLOGIES

08/2011 – 03/2013

Tier 2 VoIP Specialist

- Supported 10+ enterprise Broadsoft VoIP clients simultaneously across diverse CRMs and ticketing tools in a high-volume Tier 2 environment.
- Resolved 90% of inbound escalations while reducing Tier 3 volume by 40%.

EDUCATION & CERTIFICATIONS

East Valley Information Technology School — High School Diploma, Concentration in Information Technology
Certifications (Earned): Cisco CCNA (2022) · CompTIA Security+ (2021) · CompTIA Network+ (2021)
Certifications (In Progress, Targeted 2026): AWS Cloud Practitioner · HashiCorp Terraform Associate · Red Hat RHCSA · Kubernetes (KCNA → CKA)