

RAMON RIOS JR.

Healthcare & Zero-Trust Compliance Architect

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Core Focus: Healthcare Solutions Architect, HIPAA Compliance, FDA SaMD, FMCSA DOT Toxicology, Zero-Knowledge Cryptography, AES-256-GCM, HL7/FHIR, ICD-10, Clinical Workflow Automation, AWS Terraform

PROFESSIONAL SUMMARY

Principal Healthcare & Zero-Trust Compliance Architect specializing in HIPAA, FDA SaMD Class II, FTC HBNR, and FMCSA/DOT regulatory alignment. Spent 1 year across 6 clinics and 2 hospitals proving and solving the '15–20 page waiting-room clipboard penalty' via Aura hOS™ (AES-256-GCM zero-knowledge edge vaults) and architected CDTA's end-to-end AWS/Odoo 20 clinical toxicology platform—cutting manual intake overhead by 85% and audit preparation from days to seconds.

CORE TECHNICAL COMPETENCIES

- Multi-Agent AI Swarm Orchestration & Guardrail Engineering
- Deterministic Prompt Architecture & Hallucination Prevention
- Zero-Knowledge Cryptography (AES-256-GCM) & Edge Vault Design
- Healthcare & Regulatory Compliance Architecture (HIPAA / FDA SaMD / FMCSA DOT)
- Enterprise Systems Auditing & Threat Modeling (Zero-Trust / IAM)
- Hybrid Cloud & Infrastructure (AWS Fargate, Terraform IaC, Microsoft Azure)
- Enterprise ERP/CRM Architecture (Odoo 20, PostgreSQL, MS SQL Server, XML-RPC)
- Lean Six Sigma Black Belt Process Optimization & Executive Roadmapping

PROFESSIONAL EXPERIENCE

Principal Systems Architect — Colorado's Drug Testing Agency (Project CDTA) (Denver, CO)

Jul 2026 – Present | **Impact:** 85% Manual Entry Reduction • Real-Time B2B Net-30 Billing • AWS + Terraform + Odoo 20

- **Result & ROI:** Replaced a fractured legacy stack (Wix, QuickBooks, Google Sheets, and paper faxes) with a unified ERP/CRM Toxicology Operations platform, reducing manual data-entry overhead by **85%**, cutting audit preparation from days to seconds, and accelerating B2B Net-30 billing reconciliation from 3 days to real-time.
- **Process Automation & Chain of Custody:** Architected end-to-end digital workflows governing DOT consortium enrollment (/consortium), self-service walk-in kiosks (/kiosk), employee Fast-Pass tokens, cryptographic Chain of Custody (CCF), automated random pools, and bank-grade secure PDF delivery to Probation Officers.
- **Zero-Trust Cloud Infrastructure:** Orchestrated agency-wide deployment on AWS using Terraform IaC, high-availability PostgreSQL, and containerized Odoo services compliant with FMCSA/DOT and clinical toxicology standards.

Founding Builder & Lead Systems Architect — HumanOS Foundation (Aura hOS™) (Remote)

Nov 2025 – Present | **Impact:** Eradicated the '15–20 Page Clipboard Penalty' (Proven Across 6 Clinics & 2 Hospitals)

- **Clinical & Regulatory ROI:** Achieved structural immunity to centralized cloud breaches for health-tech deployments—bypassing FDA SaMD Class II and FTC HBNR BAA liabilities while eliminating the visceral "15–20 page waiting-room clipboard penalty" validated across a 1-year field study in 6 clinics and 2 hospitals.
- **Zero-Knowledge Cognitive Exoskeleton:** Guided the end-to-end architecture of Aura hOS™, routing patient and neurodivergent executive-function telemetry from React/TypeScript frontends to local SQLite edge vaults and PostgreSQL nodes via **AES-256-GCM encrypted QR handshakes**.
- **Deterministic AI Audit Pipelines:** Engineered multi-agent validation guardrails (*Inquisitor* & *Paradox Hunter* nodes) and a Stealth ICD-10 clinical taxonomy engine to prevent LLM hallucinations during regulatory compliance sweeps.

Senior Onsite IT Systems Engineer & Consultant — Networks Unlimited (MSP) (Montrose, CO)

Aug 2023 – Aug 2024 | **Impact:** 100% Zero-Downtime Clinical Operations • 50+ Hr Parallel SharePoint & Azure AVD Cutover

- **Zero-Downtime Healthcare Uptime:** Served as the primary onsite technical escalation advisor for hospital executives and regional medical centers, guaranteeing **100% zero-downtime operations** across hybrid cloud, Windows Server, virtualization, and MS SQL Server environments.
- **High-Stakes Cloud Cutover:** Engineered and executed a complex **50+ hour parallel migration** of enterprise SharePoint and Azure Virtual Desktop (AVD) infrastructure protected by Acronis BCDR, completing the cutover with zero operational interruption.

Systems Engineer Tier II (Project Engagements) — i.t.NOW (MSP) (Pleasant Grove, UT)

Jan 2017 – Sep 2017 | **Impact:** 9-Month Enterprise MSP Project Engagement • Zero Data Loss Datto BCDR & O365 Rollouts

- **Multi-Project Enterprise Rollouts (9 Months):** Executed a dedicated 9-month series of commercial infrastructure projects, VMware/Active Directory migrations, and Microsoft O365 security deployments for healthcare, education, and municipal clients.
- **Site Reliability & Disaster Recovery:** Governed multi-site backup and disaster recovery matrices utilizing Datto BCDR appliances and hardened Barracuda email security gateways, achieving **100% zero data loss** across all managed client cutovers.

Founder, Owner & Principal IT Consultant — Rios Computer Designs (Juana Díaz, PR & Salt Lake City, UT)

May 2004 – Dec 2020 | **Impact:** 16-Year Retail Store & B2B IT Consultancy • 3 Physical Locations • 7,000+ SKU Inventory

- **16-Year Retail Store & B2B Operations:** Founded, scaled, and operated a retail computer design store, hardware diagnostics center, and B2B IT consultancy for 16 years across **3 brick-and-mortar retail locations and technical labs**.
- **Automated Inventory & Ticketing Scale:** Engineered custom inventory and service-ticketing workflows governing an active catalog of **7,000+ unique hardware SKUs**, custom workstations, and commercial repair queues.
- **End-to-End SMB Infrastructure:** Designed and deployed commercial LAN/WAN networks, firewalls, virtualization hosts, and Windows Server environments for regional business clients.

KEY ARCHITECTURAL DEPLOYMENTS & ROI

CDTA Unified Toxicology Operations & DOT Compliance Suite — 85% Manual Entry Reduction • Real-Time Net-30 Billing • Audit Prep Cut from Days to Seconds

Consolidated a fragmented multi-vendor clinical operation (Wix, QuickBooks, spreadsheets, paper faxes) into a single high-concurrency Odoo 20 & AWS platform. Engineered public donor booking (/book), walk-in self-service kiosks (/kiosk), employer DOT random pool automation (/consortium), electronic Chain of Custody, and bank-grade encrypted PDF delivery for Probation Officers.

Aura hOS™ — Zero-Knowledge Cognitive Exoskeleton & Clinical Intake Engine — Eradicated the 15–20 Page Clipboard Penalty • Bypassed FDA SaMD Class II & FTC HBNR BAA Liabilities

Designed and deployed a local-first cognitive prosthetic and clinical intake architecture proven across 1 year in 6 clinics and 2 hospitals. Patients and neurodivergent users retain cryptographic custody of their telemetry on-device and transmit structured intake payloads via ephemeral AES-256-GCM QR handshakes—so no patient ever walks into an exam room still holding a 20-page clipboard.

CoquiAudit, CoquiProposals & CoquiPulse — Sovereign Odoo 20 FinOps, SOW & SLA Suite — 100% SaaS Tax Elimination (Calendly, PandaDoc, BetterStack) • SHA-256 E-Sign & Live SLA Telemetry

Engineered a commercial suite of native Odoo 20 Community modules replacing fragmented B2B SaaS subscriptions: **CoquiAudit** (interactive FinOps & SaaS sprawl TCO calculator at /audit-calculator), **CoquiProposals** (interactive milestone Statement of Work studio with HTML5 Canvas e-signatures and SHA-256 audit hashes at /proposals), and **CoquiPulse** (live HTTP/TLS infrastructure SLA portal at /status).

Industrial & Medical Hybrid-Cloud Modernization (Proxmox VE & Azure AVD) — 100% Zero-Downtime Cutovers Across Medical Centers & 30-Year Legacy Manufacturing Plants

Architected high-availability Proxmox VE clusters, parallel 50+ hour Azure Virtual Desktop & SharePoint migrations, and isolated SMBv1 Samba bridge appliances that safely connected 30-year-old industrial steel-mill machinery to modern zero-trust networks.

EDUCATION & CERTIFICATIONS

- **Lean Six Sigma in IT (Black Belt)** — Management Strategy Institute (Systemic Efficiency, Deterministic Workflow Modeling & Waste Reduction)
- **Microsoft Certified: Windows Server Administration Fundamentals (MTA)**
- **B.S. in Computer Science Coursework (90% Completed)** — Universidad Interamericana de Puerto Rico
- **High School Diploma** — Graduated May 2002 (Age 16, Accelerated Academic Track)

VERIFIED ASSETS & PROOF OF WORK

- **Interactive Executive Resume & ATS API:** <https://ramonrios.net/resume/1>
- **Sovereign Medical Engine (Aura hOS™):** <https://aurahos.io> | <https://ramonrios.net/AuraHOS>
- **Toxicology & DOT C/TPA Operations Suite:** <https://ramonrios.net/toxicology>
- **CoquiCal, FinOps Audit & SOW Sign Studio:** <https://ramonrios.net/book> | <https://ramonrios.net/audit-calculator> | <https://ramonrios.net/proposals>
- **Odoo Enterprise App Store (CoquiCards vCard):** https://apps.odoo.com/apps/modules/18.0/odoo_digital_business_card_coquicloud
- **GitHub & Technical Blueprints:** <https://github.com/RamonRiosJr> | <https://ramonrios.net/blog>