

MIGUEL CORONEL

CHIEF TECHNOLOGY OFFICER • HEAD OF ARCHITECTURE & TECHNOLOGY TRANSFORMATION

Banking Technology Transformation • Enterprise Architecture • AI Engineering • Architecture Governance
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EXECUTIVE PROFILE

Technology executive and architecture leader specialized in complex banking transformation. Chief Technology Officer at Nova Solution Systems with a functional mandate as Head of Architecture & Technology Transformation, covering technology strategy, enterprise and solution architecture, architecture governance, modernization and AI Engineering. Career built from electronics engineering through middleware engineering, technical leadership, banking architecture and technology-practice leadership. Has led a multidisciplinary team of 60 people to production readiness of a mobile electronic-banking platform and leads transversally through the practice leaders of web, mobile, middleware, testing and AI.

EXECUTIVE IMPACT

- **Aggregate architecture and transformation scope:** 500+ services and 800+ APIs across multiple banking initiatives.
- **Architecture → Execution → Production.** Defined and industrialized a seven-layer BIAN-aligned banking architecture through domain taxonomy, API and event standards, identity, infrastructure, engineering standards and governance. The platform operates in production.
- **Modernization without disruption.** Leads target and transition architecture for hybrid cloud and on-premise banking modernization; architecture governance identified irreversible blockers before infrastructure provisioning.
- **Architecture decision and governance systems.** Built reusable instruments for high-consequence decisions: conformity assessments, ADRs, irreversibility analysis, explicit authority, exceptions, evidence and quality gates.
- **AI Engineering.** Designed an AI Engineering operating model for regulated financial-services delivery that integrates AI-SDLC, agent governance, human-in-the-loop review, evidence and baseline measurement.
- **Engineering capability.** Designed SFIA 9-based role, career and training frameworks for the technology practices.

SIGNATURE TRANSFORMATIONS

Digital Banking Platform | Production • Greenfield • BIAN-aligned • Cloud-native

- Defined a seven-layer architecture separating experience, BFF, orchestration, domain, adapters, integration and core responsibilities.
- Industrialized domain taxonomy, API and event standards, identity, engineering archetypes, observability, resilience and architecture governance into a repeatable delivery capability.
- Outcome: architecture and application platform operating in production.

Hybrid Banking Modernization | Active • Brownfield • Cloud + On-premise

- Defines target and transition architecture across cloud, on-premise integration, legacy platforms, core banking and financial peripherals: baseline and target architectures, transition plateaus, work packages and a governed roadmap.
- Brownfield discovery covering legacy platforms, core banking, integrations and financial peripherals.

AI Engineering Operating Model | Active • Target Operating Model • AI-SDLC

- Designed an enterprise AI Engineering operating model for regulated delivery: services, capabilities, delivery modes, base profiles and the split of responsibility between people and agents.
- Embedded controls in the delivery lifecycle: where an agent may act, what a person must review and what evidence each stage leaves behind. Decision authority stays with people.

PROFESSIONAL EXPERIENCE

NOVA SOLUTION SYSTEMS — Mexico City | Oct 2019 – Present

Mexican technology consultancy (~800 consultants) specialized in digital banking transformation.

- Led a multidisciplinary team of 60 people through implementation and production readiness of a mobile electronic-banking platform.

Chief Technology Officer | 2022 – Present • Functional mandate: Head of Architecture & Technology Transformation

- Owns technology direction and architecture leadership across banking engagements: technology strategy, enterprise and solution architecture, architecture governance, modernization, AI Engineering and engineering standards.
- Leads transversally through the practice leaders of web, mobile, middleware, testing and AI; C-level interaction with banking clients and executive architecture and governance forums.
- Acts as final technical authority for architecture and technology decisions within the operating mandate.
- Leads technical professionalization, technology evaluation and AI adoption; participates in technical hiring, leadership decisions, pre-sales and proposal engineering.

Practice Lead | Oct 2019 – 2022

- Led practice development for distributed systems, APIs, microservices, cloud-native engineering and architecture.
- Defined technology directives, technical standards, career paths, coaching mechanisms and modernization approaches; contributed to the APIs & Microservices technology strategy and the technology roadmap.

AN DIGITAL / ANZEN — Mexico | Jul 2014 – Oct 2019 · Solution Architecture · Technical Leadership · Banking Engineering

- Progressed from senior middleware engineering to technical leadership and solution-architecture responsibilities in complex banking environments.
- Contributed to the migration of a major Mexican bank's business electronic banking from a monolithic architecture to microservices on Cloud Foundry.
- Designed and implemented legacy integration mechanisms, including a generic connector over TUXEDO.
- Led technical standardization, CI practices and production problem resolution; worked on high-availability middleware, WebLogic cluster migration and electronic-banking platforms.

NOVUTEK — Mexico | Feb 2013 – Jul 2014 · Senior Middleware Developer

- Engineered high-volume middleware and backend solutions using C/C++, Oracle PRO*C, Oracle 11g, Solaris and POSIX.
- Worked on IMSS SIPARE, massive e-mail processing, scheduling, PDF invoice generation and middleware performance optimization.

EARLIER PROFESSIONAL FOUNDATION | Electronics Engineering

Worked professionally in electronics, the original engineering discipline, before moving into computing and software systems. This foundation shaped a systems-oriented approach centered on causality, reliability, measurement and operational behavior.

EXPERTISE

Banking Transformation: Digital banking · core modernization · transition architecture · hybrid cloud/on-premise · multi-cloud · Open Banking · payments · credit and origination · onboarding · fraud · AML/KYC · identity · audit and evidentiary systems

Enterprise Architecture: BIAN v13/v14 · TOGAF · ISO/IEC 42010 · ArchiMate · C4 · DDD · capability and domain modeling · target and transition architecture · roadmaps · governance · ADRs · conformity assessments

AI Engineering: AI Engineering operating models · AI-SDLC · agent governance · human-in-the-loop review · evidence and baseline measurement · RAG and architecture automation · AI-enabled engineering capability

Architecture Styles: Layered banking architecture · domain-oriented architecture · microservices · API-first / contract-first · event-driven · anti-corruption layers · Strangler Fig · coexistence patterns · Zero Trust · workload identity · multi-cloud resilience · software-supply-chain governance

Security and Identity: OAuth2/OIDC · mTLS · sender-constrained tokens · identity federation · HSM/KMS · key custody · deterministic encryption · fraud integration · banking authentication · regulatory architecture

Organizational Capability: SFIA 9 · technical career frameworks · role design · engineering standards · technical assessment · mentoring · training · practice leadership · AI professionalization

SELECTED ARCHITECTURE ASSETS

- BIAN-aligned banking taxonomy and naming grammar.
- ISO/IEC 42010 viewpoint catalog and architecture-document quality criteria.
- AHP + CBAM multicriteria decision method with an executable, re-runnable model.
- Deterministic architecture-diagram generator with calculated geometry and collision controls.
- Construction archetypes and engineering quality gates by service and layer type.
- BIAN retrieval-augmented architecture toolkit with traceability from business need to Service Domain, contract and implementation artifact.
- Evidence-driven conformity assessment and architecture-decision instruments.

TECHNOLOGY FOUNDATION

Platforms and engineering: Java · Spring Boot · Quarkus · Apache Camel · Go · gRPC · OpenShift · Kubernetes · Kafka · RabbitMQ · Redis · PostgreSQL · MongoDB · SQL Server · T24/TWS · OpenTelemetry · Prometheus · Jaeger · Dynatrace · Splunk

Identity and security: Auth0 · Okta · Keycloak · OAuth2/OIDC · mTLS · HSM/KMS · sender-constrained tokens

EDUCATION AND LANGUAGES

Ingeniería en Comunicaciones y Electrónica · 1997 – 2001

Graduate studies in Computer Science, CIC · 2009 – 2010 · coursework; degree not completed

Languages: Spanish — native · English — professional working proficiency

Public-version evidence rule: confidential banking engagements are anonymized; figures are inventories of delivered or discovered scope; objectives, projections and modeled estimates are not presented as achieved outcomes.