



Endy Muhardin

IT Consultant & Solution Architect

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PROFILE

Solution Architect with 20+ years of experience designing enterprise systems across banking, payment, insurance, government, and education sectors. Specialized in payment system architecture (ISO-8583), microservices and event-driven design, high-availability infrastructure, and cross-system integration. Led architecture for 16+ production systems and delivered 40+ corporate trainings on architecture topics.

TECHNICAL COMPETENCIES

- Solution Architecture:** System Design, Integration Patterns, High Availability, Event-Driven Architecture, Domain-Driven Design
- API & Integration:** REST API, SOAP, ISO-8583, Kafka, OAuth/SSO, OpenID Connect, SAML
- Payment Systems:** Payment Gateway, ATM/EDC Integration, Bank Switching, HSM, PIN Block
- Platform & Infrastructure:** Docker, Kubernetes, HAProxy, Ansible, Pulumi, PostgreSQL Replication
- Programming:** Java, Spring Boot, Spring Cloud, Go, Hibernate
- Security:** Keycloak SSO, OWASP Top 10, SAST/DAST, AES-256, Certificate Management
- Process & Governance:** CMMI, Scrum, Architecture Review, Quality Management

PROFESSIONAL EXPERIENCE

- Vice Chairman, Lecturer** | *STMIK Tazkia* 2024–now
Design campus-wide information system architecture, oversee curriculum and quality assurance
- Senior Consultant, Solution Architect** | *ArtiVisi Intermedia* 2008–now
Design solution architecture for enterprise clients, evaluate technology stacks, lead implementation of payment systems, banking platforms, and integration solutions
- Trainer** | *Brainmatics* 2006–now
Deliver architecture and engineering training on microservices, payment systems, DevSecOps, and application security
- IT Dept Head, Lecturer** | *Universitas Tazkia* 2017–2024
Architect and oversee campus information systems (academic, financial, HR), integrate multi-bank virtual account payment
- Software Engineering Process Group** | *BaliCamp* 2005–2008
Architect organization-wide software development process and procedures compliant with CMMI requirements. Achieved CMMI ML-3 in 2007
- Lead Programmer** | *Telematics Indonesia* 2004–2005
Design software architecture and implement client projects
- Software Architect, Lead Programmer** | *Enciety* 2003–2004
Evaluate and compare available tech stacks, select the most appropriate combination for core banking application, define and implement overall application structure, apply design patterns as required

SELECTED PROJECTS

- Campus Website & Admission System** – STMIK Tazkia 2026
Event-driven admission pipeline with Kafka message broker, Astro SSG marketing site, applicant self-service portal, document review workflow, asynchronous payment verification, WhatsApp notification integration [*Go, Astro, Templ, HTMX, Alpine.js, Tailwind CSS, PostgreSQL, Kafka, Cloudflare Workers*]
- High Availability SSO Infrastructure** – PT Kereta Api Indonesia 2025
Enterprise SSO architecture with Keycloak clustering, PostgreSQL streaming replication for failover, OpenLDAP federation for existing directory integration, HAProxy L7 load balancing with health checks, automated provisioning with Ansible [*Keycloak, PostgreSQL, OpenLDAP, HAProxy, Ansible, Docker*]
- HSM Simulator** – ArtiVisi Intermedia 2025
Hardware Security Module simulator architecture for payment training, PIN encryption/decryption with ISO-8583 PIN blocks,

MAC generation and verification, key ceremony workflow, inter-bank key exchange protocol [*Java 21, Spring Boot, PostgreSQL, AES-256, ISO-8583 PIN Blocks*]

Sharia Banking System – ArtiVisi Intermedia 2025
Domain-driven banking architecture with Sharia-compliant financial products (Wadiah, Mudharabah savings), multi-level approval workflows, Islamic financing product engine, accounting integration [*Java 21, Spring Boot, PostgreSQL, Thymeleaf, Tailwind CSS*]

Accounting System – ArtiVisi Intermedia 2025
Modular accounting architecture with Indonesian tax compliance (PPN, PPh), payroll engine, fixed asset depreciation, inventory management, infrastructure-as-code deployment [*Spring Boot, PostgreSQL, Thymeleaf, HTMX, Alpine.js, ZAP DAST, Ansible, Pulumi*]

Financial Management System – Yayasan Sahabat Quran 2026
Foundation financial system with master data management (students, teachers), attendance tracking, salary calculation engine, operational expense workflows, reporting module [*Go, HTMX, Alpine.js, Tailwind CSS, PostgreSQL, Playwright*]

Islamic Education Management – Yayasan Sahabat Quran 2024
Education platform architecture with student registration flow, class scheduling engine, academic planning module, performance analytics dashboard [*Spring Boot, PostgreSQL, Thymeleaf, Bootstrap*]

Sharia Insurance Onboarding – Client Undisclosed 2023
Insurance onboarding architecture with customer registration, underwriting rule engine, payment gateway integration via SOAP web services [*Java, Spring, Microservice, SOAP*]

Seaport Management System – Pelabuhan Tiga Bersaudara 2022
Port operations architecture integrating pilotage management, Kemenhub (Ministry of Transport) application interface, bank payment settlement [*Java, Spring, Microservice, SOAP*]

Virtual Account Integration – STEI Tazkia 2018
Multi-bank payment integration architecture connecting 3 bank virtual account systems (BSM, BNI, CIMB) with unified reconciliation [*Java, Spring, Microservice, REST, SOAP*]

Academic Information System – STEI Tazkia 2017
Microservices architecture for campus system with OAuth-based SSO, modules for enrollment, tuition payment, academic administration, and HR [*Java, Spring, Microservice, OAuth*]

Payment Switching System – ArtiVisi Intermedia 2013
Payment switch architecture routing ISO-8583 transactions across multiple payment endpoints, message transformation, connection pooling, transaction logging and reconciliation [*Java, ISO-8583*]

Payment Gateway System – ArtiVisi Intermedia 2011
Payment gateway architecture with front-office POS interface and back-office settlement system for billing payment outlets, ISO-8583 message handling [*HTML, JavaScript, Java, ISO-8583*]

EDC Server – G4S Euronet 2010
Server architecture for managing fleet of EDC (Electronic Data Capture) devices, device provisioning, transaction routing, ISO-8583 protocol handling [*Java, ISO-8583*]

ATM Integration – Bank Windu Kencana Indonesia 2008
Integration architecture connecting core banking application to ATM BCA network via ISO-8583, transaction mapping, error handling, reconciliation [*Java, Spring Framework, Hibernate, ISO-8583*]

Core Banking Application – Enciety 2003
Evaluate and compare available tech stacks, select Java Servlet + Velocity + Hibernate as the optimal combination, define overall application structure, implement design patterns for transaction processing, account management, and reporting modules [*Java Servlet, Velocity Template Engine, Hibernate ORM*]

TRAINING EXPERTISE

Microservices Architecture – Spring Cloud, API Gateway, Service Discovery, Config Server, Circuit Breaker (*Bank BCA, Blanja.com, Generali Insurance, Chubb Insurance*)

Payment Systems (ISO-8583) – Payment Gateway Architecture, ATM/EDC Integration, Bank Switching, Spring Boot + jPOS (*Bank BCA, Visionet Data Internasional, Induk Koperasi Kredit*)

Application Security – OWASP Top 10, SAST (SpotBugs, CodeQL), DAST (OWASP ZAP), OAuth 2.0, SSO Architecture (*MTI/Yokke, Indonesian Government, Direktorat Jenderal Pajak*)

DevSecOps & Kubernetes – Docker, Kubernetes, CI/CD Pipeline Architecture, SAST/DAST Integration, Security

Scanning (*Ditjen Bea Cukai, Asuransi Kredit Indonesia, Bank BCA*)

Site Reliability Engineering – SRE Fundamentals, Linux Administration, Docker, High Availability Architecture, Incident Response (*ArtaJasa*)

Java & Spring Framework – Spring Boot, Spring Security, JPA, REST API, Reactive Programming (*TelkomSigma, Bank Jateng, Doku, eBDesk, Pegadaian, Ministry of Finance*)

Automated Testing – Selenium, Functional Testing, Test Automation (*Kemenkominfo, Brainmatics*)

CMMI & Process Improvement – CMMI Dev, SCAMPI-A, Process Definition, Quality Management (*Anabatic, Brainmatics, Traspac*)

CONSULTING ENGAGEMENTS

DevOps Architecture – Lembaga Administrasi Negara	2023
Software Engineer Competence Standard – PT Telkomsel	2022
Enterprise SSO Architecture – PT Kereta Api Indonesia	2021
CMMI Dev Implementation – ICON+	2018
Application Architecture Assessment – Jurnal.id	2018
CMMI Dev Implementation – Abhimata Persada	2017
CMMI Dev Implementation – Anabatic Technologies	2015
Application Architecture Review – VeriTrans	2013

EDUCATION

Islamic Economy <i>Institut Agama Islam Tazkia</i>	2020 Bogor
Teknik Industri <i>STT Telkom</i>	1997–2001 Bandung