

MIKA KOIVISTO

Hands-On Solution Architect | Payments & Open Banking | AI-Native Lead Developer

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PROFESSIONAL SUMMARY

Lead Developer and Hands-On Solution Architect with 25+ years in software development, specializing in payments and banking systems for the past 9 years. Architecting and delivering mission-critical regulatory APIs, real-time payment systems, and secure banking services in hybrid cloud environments. Proven track record from PSD2 compliance to production operations, combining deep technical expertise in Java/Vert.x, API security (OpenID Connect, OAuth 2.0, FAPI, eIDAS), and an AI-native development workflow.

COMPETENCE

- **Architecture:** Microservices, Event-Driven Architecture, REST, SOA, Serverless
- **Programming languages:** Java, JavaScript/Node.js
- **Frameworks:** Vert.x, Spring Boot, OSGi
- **AI & Development Tools:** Claude Code, GitHub Copilot, Cursor, Codex, IntelliJ IDEA
- **API Security:** OpenID Connect, OAuth 2.0, FAPI, JWT, SAML, mTLS, eIDAS, PKI
- **API Management:** Apigee, AWS API Gateway
- **Cloud:** AWS, Docker
- **Messaging:** Apache Kafka, RabbitMQ (MQTT)
- **Databases:** PostgreSQL, MySQL/MariaDB, DynamoDB, DB2, Oracle
- **Observability:** Dynatrace, Grafana, Prometheus, OpenTelemetry, DataDog
- **Testing:** RestAssured, TestContainers, JUnit, Cucumber, JMeter, WireMock, SonarQube
- **Agile Practices:** Scrum, Kanban, XP, TDD, CI/CD
- **Home automation:** Home Assistant, InfluxDB

WORK EXPERIENCE

Koivisto Consulting
Helsinki, Finland
Principal Consultant

Jan 2017 - Present

Client Engagements:

Finland's Largest Financial Services Group

Apr 2017 - Present

Lead Developer and Architect in one of the largest financial group's retail banking, in a team responsible for designing, building, and operating four distinct product areas: regulatory APIs (PSD2 Open Banking, government compliance), P2P mobile payment service and merchant API, and digital onboarding backend.

- Architected PSD2-compliant Open Banking APIs (payment initiation, account information, funds confirmation) now processing millions of payments monthly as a significant channel alongside the bank's own app, making the bank the **first Nordic bank** to receive an exemption from the PSD2 fallback channel requirement.
- Consolidated three separate Strong Customer Authentication solutions (web, mobile, sandbox) into a single unified solution. Enabled app-to-app SCA and dynamic linking in mobile via universal links.
- Re-engineered APIs from a mixed technology stack to unified Vert.x architecture. Co-created a shared internal toolkit combining JAX-RS, Vert.x OpenAPI Router, and resilience patterns into reusable components adopted across team projects.
- Maintained and operated the PSD2 production environment as a two-person team with continuous delivery.

- Drove engineering excellence through zero bug tolerance and disciplined DevOps practices, achieving the organization's first 100% CALMS maturity coverage.
- Co-authored the organization's first JWT-based security token for internal API usage, providing a stateless alternative to SAML 2.0 and session-based systems.
- Adopted an AI-native development workflow using GitHub Copilot's agentic coding with sub-agents for iterative planning and delegated implementation.
- Represented the organization in Open Banking Europe technical and functional working groups, contributing to the definition of the OBE directory service.

Technologies used: Java 17, Vert.x, Docker, hybrid cloud with AWS, PostgreSQL, Apigee, REST, OpenAPI, JWT, OAuth2.0 with Financial API, OIDC, Dynatrace, TestContainers, RestAssured, Apache Kafka, MTLS

Other Engagements:

- **CA Technologies (USA):** Implemented encrypted token support to Liferay SAML 2.0 provider. Worked with teams in USA and India to integrate the solution to CAs own product.
- **Mondi Group (Austria):** Performed performance analysis for a Liferay platform to identify and provide a report with actionable suggestions to fix the issues.

Liferay Apr 2009 – Dec 2016
 Long-time community member and open source contributor turned employee.

Senior Software Engineer Nov 2010 – Dec 2016
 Los Angeles CA, USA & *Helsinki, Finland*

- Designed and built Liferay's SAML 2.0 Identity Provider and Service Provider, a flagship enterprise feature still in the product today.
- Worked closely with the company founder and Chief Software Architect on key platform development.
- Trained support engineers in technical troubleshooting (heap dump analysis, thread dumps), dramatically improving their ability to diagnose and resolve customer issues independently.

Senior Consultant Apr 2009 – Oct 2010
Frankfurt am Main, Germany

- Provided architecture consulting and solution validation for Fortune Global 500 clients including Robert Bosch, Vodafone, Barclays, and IBM.
- Developed a client-funded audit framework for the core platform with pre-built hooks for key events and objects.
- Delivered technical training, pre-sales support, and performance tuning across European client deployments.

Logica (now CGI) Nov 2001 – Mar 2009
Lead Software Architect
Helsinki Finland

Lead Software Architect Nov 2006 – Mar 2009

- Coordinated architects across multiple concurrent projects, combining hands-on architecture with pre-sales support and RFP evaluation.
- Architected message-driven SOA solutions using IBM Message Broker and WebServices.
- Mentored developers and architects through regular code and architecture reviews.

Software Architect / Software Designer Nov 2001 – Oct 2006

- Progressed from developer to lead developer to architect across portal and CMS projects (IBM WebSphere Portal, Liferay, BEA WebLogic Portal, Fatwire CMS).

Spray Network (Lycos Europe) Nov 1999 – Nov 2001
Helsinki, Finland

Lead Developer

Western Washington University Oct 1997 – Oct 1998
Bellingham, WA USA

Web Technician [Computer assistant IV]