

LUKMANUL HAKIM

Principal Solutions Architect & Cloud Modernization Strategist

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PROFESSIONAL SUMMARY

Cross-layer Solutions Architect with 15 years of progressive engineering experience specializing in legacy modernization, monolithic system decomposition, and enterprise-grade generative AI / agentic system integration into resilient, cloud-native microservices architectures. Bridges physical infrastructure failure modes (L1 fiber/FTTH) to distributed multi-cloud platforms (L7 K8s/GitOps) and quantitative risk modeling. Empaneled Subject Matter Expert across global expert networks (VisasQ, Coleman Research), delivering retained technical due diligence and modernization assessments for institutional investors. Integrates standardized reliability engineering (IEC 60812 FMEA, IEC 61025 FTA) with capital governance principles to eliminate single points of failure (SPOF), optimize deployment security, and protect enterprise EBITDA integrity.

CORE COMPETENCIES & TECHNICAL PROFICIENCIES

- **Cloud Architecture & Multi-Cloud Strategy:** Google Cloud Platform (GCP), Amazon Web Services (AWS), Microsoft Azure, Alibaba Cloud, Hybrid Cloud Infrastructure, Distributed Systems, High Availability (HA), Disaster Recovery (DR).
- **Enterprise AI & Agentic Solutions:** Azure AI Studio, Autonomous Agent Architecture, LLM Orchestration, Semantic Kernel, Token Governance, Prompt Defense & Safety, Multi-modal AI, Zero Trust AI Security.
- **Modernization & Container Orchestration:** Monolith-to-Microservices Decomposition, Kubernetes (GKE, EKS), Docker, Stateless Architecture, Fault Domain Isolation, Service Mesh, Zero-Downtime Migration.
- **DevSecOps & Infrastructure as Code (IaC):** Terraform, GitOps (Flux CD), CI/CD Automation, Zero-Touch Provisioning, SonarQube, OWASP ZAP, Enterprise Secret Management, Shift-Left Security.
- **Reliability Engineering & Risk Governance:** IEC 60812 (FMEA), IEC 61025 (FTA), ISO 31000 Risk Management, Single Point of Failure (SPOF) Elimination, Root Cause Analysis (RCA), SRE Principles, MTTR/MTBF Optimization.
- **Enterprise Telemetry & Regulatory Compliance:** BSS/OSS ETL Reconciliation, Telecom Infrastructure QA (\$93M Scale), Financial Regulations (OJK & Bank Indonesia Compliance), SolarWinds, Network Telemetry, Audit Readiness.

PROFESSIONAL EXPERIENCE

VisasQ Inc. & Coleman Research Group | Global (Remote). *Empaneled Industry Advisory Council Member (Technical Due Diligence)*

September 2025 – Present

- Deliver retained, NDA-governed technical due diligence and architectural modernization assessments for Private Equity (PE) firms and institutional investors evaluating cloud migration feasibility and telecom infrastructure acquisitions.
- Formulate quantitative risk exposure models, distributed fault isolation strategies, and SPOF mitigation frameworks across legacy-to-cloud transitions using IEC 60812 (FMEA) and IEC 61025 (FTA) methodologies.
- Advise executive leadership on multi-cloud operational cost governance (FinOps), architecture scalability, and technical debt remediation prior to major capital deployments.

PT Altha Dyanusa Consulting | Jakarta, Indonesia. *Enterprise IT Advisory Consultant*

January 2023 – February 2025

- Formulated enterprise multi-cloud blueprints and ISO 31000-aligned IT risk governance frameworks for institutional clients transitioning mission-critical monolithic core systems into cloud-native architectures.
- Advised enterprise engineering leadership on zero-downtime migration pathways, container security compliance policies, and fault-tolerant cloud economics to maximize infrastructure ROI and operational resilience.
- Standardized enterprise DevSecOps policies across hybrid environments, establishing automated compliance controls and baseline vulnerability SLAs.

PT Meteor Inovasi Digital (via Independent Advisory) | Jakarta, Indonesia. *Cloud Migration Lead & Solutions Architect*

September 2022 – December 2022

- Directed a 4-month multi-cloud legacy modernization and migration initiative across AWS, GCP, and Alibaba Cloud for high-traffic enterprise applications.
- Decomposed VM-based monolithic workloads into containerized Kubernetes microservices using Terraform IaC, achieving 99.9%+ system availability and completing a seamless zero-downtime cutover.
- Established automated deployment pipelines and multi-region failover protocols, mitigating single cloud dependency risks and improving system resilience.

PT Kredit Pintar Indonesia (via Independent Advisory) | Jakarta, Indonesia. *FinTech Solutions & DevSecOps Architecture Lead*

July 2022 – September 2022

- Architected automated GitOps continuous delivery workflows using Flux CD on Alibaba Cloud, decoupling stateful legacy FinTech backend services into highly scalable, stateless microservices.
- Enforced automated audit verification pipelines and container hardening protocols fully compliant with OJK (Financial Services Authority) and Bank Indonesia regulatory data governance standards.
- Implemented strict role-based access control (RBAC) and zero-trust telemetry across financial microservices transaction pathways.

PT Tri Adi Bersama (Anteraja) (via Independent Advisory) | Jakarta, Indonesia. *Container Platform & DevSecOps Architect*

November 2021 – July 2022

- Scaled multi-cluster container orchestration environments (GKE/EKS) across 120 decoupled logistics microservices handling peak-volume nationwide delivery traffic.
- Integrated automated CI/CD security scanning gates (OWASP ZAP, SonarQube), eliminating 60% of critical vulnerabilities prior to production deployment and peak eCommerce logistics events.
- Optimized pod auto-scaling policies and container compute resource allocation, reducing infrastructure overhead while sustaining sub-second API response latencies.

PT Hashmicro Solusi Indonesia (via Independent Advisory) | Jakarta, Indonesia. *Cloud Automation & Infrastructure Lead*

May 2020 – October 2020

- Engineered declarative Infrastructure as Code (IaC) provisioning workflows using Terraform for multi-tenant enterprise ERP cloud deployments.
- Reduced client environment provisioning lead time by 70% through modularized zero-touch provisioning automation, accelerating client onboarding cycles.

PT Dimension Data Indonesia | Jakarta, Indonesia. *Network Telemetry & Infrastructure Engineer*

February 2015 – June 2015

- Engineered MPLS core backbone performance optimizations for Tier-1 banking clients using SolarWinds enterprise network telemetry.
- Eliminated transmission latency bottlenecks and transient packet loss across high-throughput financial payment clearing and interbank settlement systems.

PT Telkom Akses (Telkom Indonesia Group) | Jakarta, Indonesia. *Principal Operational and Compliance Manager*

April 2013 – October 2014

- Executed field quality compliance audits and service fulfillment testing within the Directorate of Operations for a nationwide copper-to-FTTH rollout program (\$93M/IDR 1.5T program scope).
- Applied IEC 61025 (FTA), IEC 60812 (FMEA), and ISO 31000 Risk Governance frameworks to audit fulfillment failure modes, driving a 20% defect reduction during integration testing with zero capital asset discrepancy.
- Developed automated ETL data reconciliation scripts (Oracle, PostgreSQL, SOAP APIs) linking physical field infrastructure inventory with BSS/OSS platforms (I-Sisca, TenOSS) to maintain audit-compliant asset registers.

Biznet Networks | Jakarta, Indonesia. *Customer Care Specialist*

October 2011 – October 2012

- Diagnosed and resolved enterprise L1/L2 network connectivity incidents, fiber infrastructure anomalies, and corporate SLA escalations.
- Coordinated cross-functional root-cause analysis (RCA) and trouble-ticket resolution via enterprise CRM systems to uphold strict service level guarantees.

VERIFIED CERTIFICATIONS & CREDENTIALS

- **Microsoft Certified: Azure AI Apps and Agents Developer Associate (AI-103)** (Credential ID: MS1100623380)
- **Google Cloud Certified: Professional Cloud Architect**(Credential ID: ac6c40d564fc4911b48506b04f269dac)
- **Google Cloud Certified: Associate Cloud Engineer** (Credential ID: 55864fb403294d648d9d213032600842)
- **AWS Certified: Cloud Practitioner** (Credential ID: YT3X1MX1VFBE1K5V)
- **AWS Certified: Generative AI Practitioner - Cloud Quest** (Credential ID: 319f5386-8769-4719-b93f-29b81814900c)
- **Cisco Certified: DevNet Associate** (Credential ID: 1987298840-45/PROA/BLSDM/2024)
- **Cisco Certified: CyberOps Associate** (Credential ID: 0447256131-103/OA.DTS/2020)

TECHNICAL TRAINING & SPECIALIZATIONS

- **Microsoft Azure AI & Data Systems:** AI-102 (Azure AI Solutions & Generative AI Knowledge Mining), DP-100 (Data Science AI Agents, Azure OpenAI & Semantic Kernel).
- **Cloud Security & Advanced AI:** AI-3003 (Natural Language Processing), AI-3004 (Computer Vision), AI-3002 (Document Intelligence), Azure DevOps Pipeline Security, Serverless Container Architecture.

EDUCATION

University of Mercu Buana | Jakarta, Indonesia

Bachelor of Science in Economics (S.E.) | Graduation: October 2018 | GPA: 3.17/4.00

- **Specialization Focus:** Quantitative Risk Analysis, Telecommunication Systems & Operational Modeling
- **Undergraduate Thesis:** Operational Risk Analysis Using Fault Tree Analysis (FTA) and Failure Mode and Effect Analysis (FMEA) in the Process Testing of the FTTH Triple Play (IndiHome) Fulfillment System.