

Client Profile

Ekuanima is a leading consulting firm in sustainability and climate action that facilitates organizations' journey toward environmental regeneration and compliance with ESG (Environmental, Social, and Governance) standards. Operating in a critical industry for climate change mitigation, the company merges environmental technical expertise with cutting-edge tools to manage the complexity of sustainability reporting and decarbonization.

Through the implementation of Generative AI, in partnership with biia on AWS infrastructure, Ekuanima has automated access to complex technical queries, allowing its corporate clients to navigate environmental and social regulations, optimizing supplier diversity mapping and social impact strategies with agility and precision driven by state-of-the-art language models.

- **Engagement Start Date:** December 17, 2025.
- **Engagement End Date:** Ongoing (Minimum 6-month continuous Managed Services contract executed and active)

The Business Challenge

Ekuanima's main challenge lay in the lack of technological tools to operationalize social inclusion in procurement processes. Official directories and current registration systems fail to capture the real value of companies with a differential approach, resulting in inequitable supply processes and the systemic exclusion of rural women and diverse communities. There was an urgent need to move from a normative classification to an inference with a differential focus, where a supplier's trajectory and territory were valid variables of competitiveness for the public and private sectors.

To resolve this, an infrastructure based on Generative AI was required to eliminate the friction of technical language through a hybrid system combining social research with natural language processing (NLP) on AWS. The technical objective was to operate a production-grade system (DEI-si) performing autonomous equity self-assessments and matching simulations.

Because this application handles sensitive corporate diagnostics and operates in areas with volatile connectivity, Ekuanima needed a **Next-Generation AWS Managed Service Provider** to guarantee high availability (99.9% architectural stability), protect data privacy, and manage day-to-day operations under strict corporate standards.

The Technical Solution

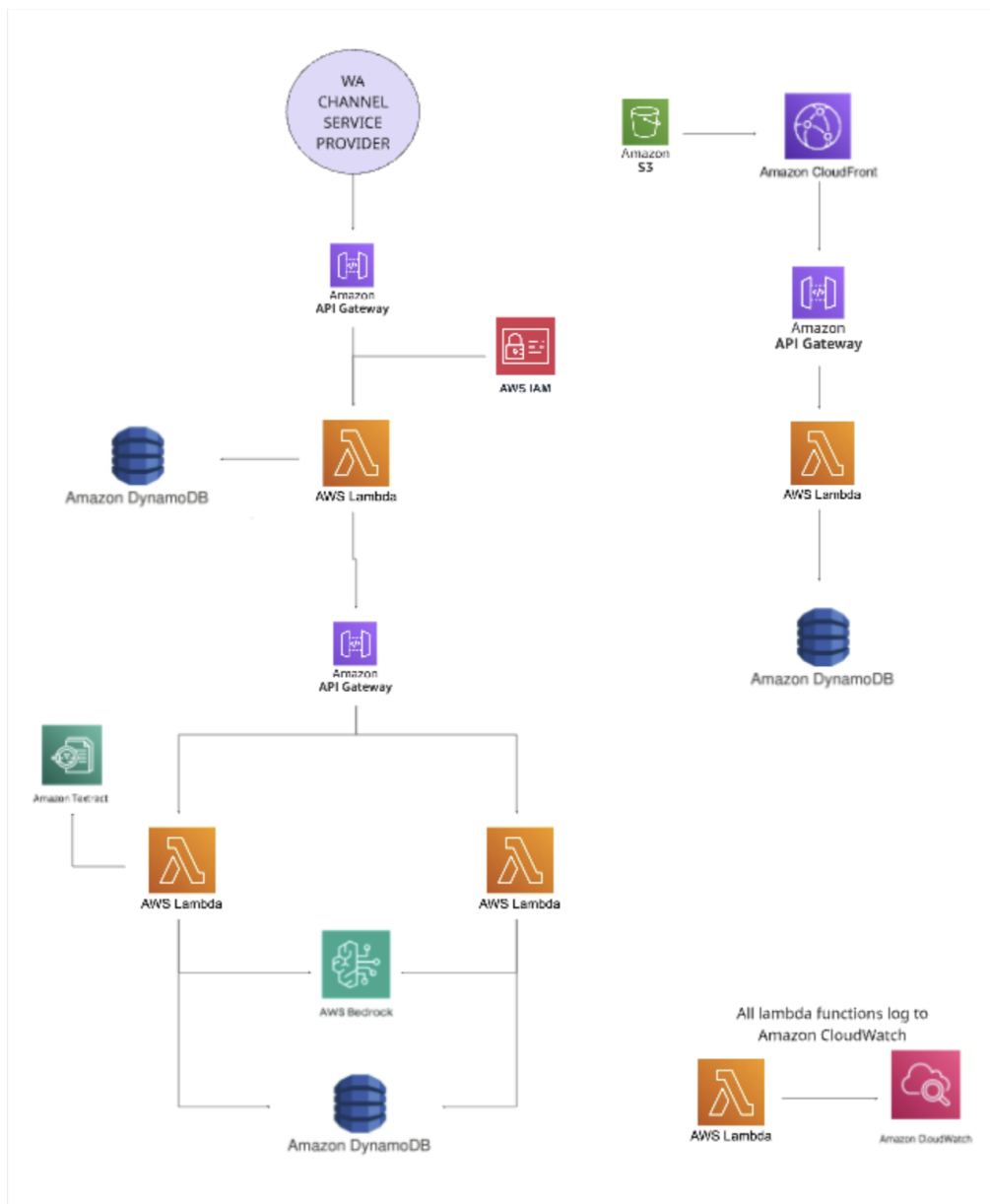
The technical architecture implemented and managed for Ekuanima delivers a highly resilient, serverless conversational flow:

- **Semantic Reasoning Layer:** Amazon Bedrock leveraging Anthropic Claude 3 Sonnet to process natural language with high semantic sensitivity while optimizing token consumption costs.
- **Ethical Safety Layer:** Integration of Amazon Bedrock Guardrails to filter sensitive topics, prevent invisibility bias through Contextual Grounding, and ensure conversations remain strictly focused on ESG diagnostics.
- **Serverless Compute & Orchestration:** AWS Lambda coordinates execution between the user channel, language models, and storage layers without prior technical knowledge required from users.
- **Document Intelligence:** Amazon Textract automatically extracts structured and unstructured data from official supplier documentation for cross-checking and real-time semantic validation via Bedrock.
- **Stateful Persistence Layer:** Amazon DynamoDB acts as the central storage engine, managing full conversational contexts. This specific configuration enables asynchronous interactions, allowing suppliers in areas with unstable connectivity to complete assessments over multiple days without data loss.

MSP Support and Managed Services (Day 2 Operations)

To sustain the resilience, compliance, and financial efficiency of Ekuanima's production workloads, biia provides proactive next-generation managed services under the AWS Shared Responsibility Model:

- **24/7/365 Incident Management & ITSM Integration:** biia continuously monitors system performance, API responsiveness, and infrastructure events via Amazon CloudWatch. All critical logs are hooked directly into our centralized ITSM platform. We enforce precise SLAs to address technical anomalies—such as data processing delays or DynamoDB throttling—minimizing operational friction for global users.
- **Continuous Vulnerability Management & Security Operations:** Because diverse supplier data is highly sensitive, biia manages continuous security auditing. We leverage AWS IAM Access Analyzer to perform recurring least-privilege reviews, handle automated cryptographic key rotation via AWS KMS, and execute automated multi-region backup routines to fulfill strict ESG data residency standards.
- **Proactive FinOps & Cost Optimization:** With Amazon Bedrock and Amazon Textract accounting for 80% of the total architectural spend, biia implements rigorous cost governance. Through monthly FinOps cycles, we optimize token boundaries, monitor system utilization, and refine serverless execution windows to drastically reduce the cost per qualified supplier while maximizing Ekuanima's cloud budget.



Quantitative Results

The ongoing management and support of the DEI-si infrastructure achieved conclusive results in its sustained production environment:

- **Operational Agility:** 96% reduction in operational diagnosis time, transforming a process that traditionally took days into a **minutes-long automated session**.
- **Technical Accuracy:** Achieved an 88% precision rate in the semantic extraction of complex social attributes and maintained a 99.9% architectural stability across sustained high-scale databases.
- **Supplier Inclusion:** Identified 35% more diverse suppliers compared to traditional registration methods, successfully indexing high-impact supplier profiles across vulnerable territories.
- **Cost Efficiency:** Reduced the cost of supplier acquisition and qualification by 75%, lowering overall operational overhead and enabling a 50% cost reduction per qualified lead through biia's ongoing serverless optimization.
- **Business Scale:** The managed cloud infrastructure operates with an estimated AWS Annual Recurring Revenue (ARR) of \$89,880 USD.

biia's Profile and Added Value

biia stands out as a strategic ally in the global sustainability agenda by providing Ekuanima with a Responsible Technology infrastructure that scales social impact. biia's added value lies in its capability to transform Generative AI into a tool for equity, deploying a secure, serverless environment aligned with the AWS Well-Architected Framework. Through our Next-Gen Managed Services practice, we remove operational complexities, allowing Ekuanima to meet its digital transformation goals and ESG commitments with human precision powered by AWS.

Consent & Approval Note: This case study is published with the express written permission of Ekuanima. The client has reviewed and validated the technical architecture deployed on AWS, the results of the DEI-si implementation, and the associated performance metrics for public inclusion.



About biia

biia is a premier next-generation technology consulting firm and cloud services provider specializing in the architecture, deployment, and long-term managed operations of Generative AI ecosystems, serverless applications, and high-scale data solutions on AWS. Committed to driving exponential efficiency and strategic agile innovation, biia transforms traditional workflows into autonomous, enterprise-grade digital platforms aligned with the highest standards of the AWS Well-Architected Framework. Through its Next-Gen Managed Services practice, the firm delivers robust 24/7 proactive monitoring, full-stack observability, cloud financial governance (FinOps), and rigorous security architectures, enabling organizations worldwide to operationalize technical excellence and scale business outcomes seamlessly in the cloud.