I AM J CORPORATION

Technical Architecture

A public, logical overview of the I am J end-to-end architecture and deployment model.

Document ID	DOC-008
Version	1.1
Publication date	August 2026
Official language	English
Publisher	I am J Corporation

Official public reference publication. For media inquiries: corporate@iamj.ai

Technical Architecture

A public, logical overview of the I am J end-to-end architecture and deployment model.

Designed for independent evolution, coordinated intelligence, and responsible deployment.

Individual capabilities can evolve independently while remaining connected through shared identity, APIs, event flows, observability, security controls, and user experiences.

Modular by Design

Independent services reduce coupling and allow targeted evolution, deployment, and testing.

Cloud Native

Managed and serverless AWS services support elasticity, operational control, and global delivery.

One coordinated path from human intent to real-world response.

The diagram presents the logical architecture and principal data flow. Providers and implementation details may evolve without changing the overall model.

A layered system with clear responsibilities.

Layer	Representative components	Architectural purpose	Representative technologies
Experience Layer	Mobile, web, voice, touch, camera, haptics	Capture intent and deliver accessible contextual experiences.	React Native, Expo, web standards, device capabilities
Interaction Intelligence	Speech recognition, speech synthesis, translation, vision	Transform human input into machine-usable signals and return natural responses.	STT, TTS, multilingual services, vision APIs
AI Orchestration	AI Prodigy, intent, context, routing, policy controls	Interpret requests, select services, maintain context, and coordinate response plans.	LLM services, rules, orchestration logic, policy layers
Capability Services	Pathfinder, Explorer, Guided Tours, Sight & Tell, SOS	Provide specialized domain capabilities through independent services.	AWS Lambda, REST APIs, event-driven functions
Platform Services	Identity, entitlements, J-Coins, data, analytics, messaging	Support accounts, transactions, security, communications, and operations.	Cognito, DynamoDB, API Gateway, SES, CloudWatch
Integration Layer	Weather, traffic, places, maps, communications	Provide live context and specialized third-party capabilities.	HTTPS APIs, webhooks, provider SDKs

Layer	Representative components	Architectural purpose	Representative technologies
Cloud & Delivery	Static delivery, storage, compute, secrets, monitoring	Operate, secure, scale, observe, and deliver the platform.	CloudFront, S3, Lambda, IAM, Secrets Manager
Deployment Environments	Consumer, enterprise, NOMAD, GRID, future edge	Adapt the platform to personal, institutional, remote, and resilient use cases.	Managed devices, remote connectivity, edge services

Requests are decomposed into coordinated service actions.

Intent is interpreted, policy is applied, services are invoked, results are combined, and the response is delivered through the appropriate channel.

Capture

Voice, text, image, location, or device event enters the platform.

Interpret

Intent, entities, language, context, and requested outcome are identified.

Managed cloud services provide the operating foundation.

The service mix evolves with product requirements and operational maturity.

Amazon Cognito

Authentication, identity federation, account security, and organization-aware access.

Amazon API Gateway

Secure API exposure, routing, throttling, validation, and Lambda integration.

Security, privacy, accessibility, and oversight are architectural requirements.

Identity & Access

Authenticated access, organization context, session controls, and role-aware permissions.

Encryption

TLS in transit and managed encryption for stored data where applicable.

Least Privilege

One platform foundation, multiple operating environments.

Consumer Deployment

Mobile-first AI experiences for individuals.

Organization-aware services through J-SPARK Nexus.

Portable architecture for remote schools, NGOs, and field operations.

Permanent institutional deployment for campuses and public services.

- Personal AI assistant
- Voice and multilingual interaction
- Navigation and exploration
- Visual assistance and SOS support
- Institutional identity and policy
- Organization credit pools
- Managed devices and workflows
- Knowledge and operational access

Patterns designed to contain failure and support recovery.

Service Isolation

Failures in one capability should not disable unrelated services.

Controlled Retry

Transient failures use bounded attempts, backoff, and duplicate protection.

Graceful Fallback

A staged path toward enterprise, edge, and resilient intelligence.

Production Consumer Platform

Operational mobile AI experiences and shared cloud services.

Enterprise Controls

Organization identity, policies, credit pools, reporting, and workflows.

J-SPARK Nexus

Review, validate, and help advance the architecture.

I am J welcomes technical due diligence, architecture review, research collaboration, enterprise pilots, and qualified deployment partnerships.

Continue with confidential technical evidence

Request deeper architecture, platform, validation, roadmap, and implementation materials for institutional review.

Help Unlock Human Potential

I am J is already reaching people in 125 countries and 21 languages. Your support helps extend trusted conversational knowledge to more students, families, educators, humanitarian organizations, and underserved communities.

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