



AiDA

ADVANCED DIAGNOSTICS

Next-Gen Autonomous-Ops & Monitoring Platform

Real-time insight · Faster fixes · Peace of mind · Supports: Web, iOS & Android

The Challenge



Complex services & data pipelines create a flood of metrics



Ops teams juggle dashboards & logs to find root causes



Slow resolution → downtime, customer impact, rising costs

Our Solution (How It Works)



Ingest – Ansible playbooks run on every server, collect health & performance facts, as NON-ROOT USER



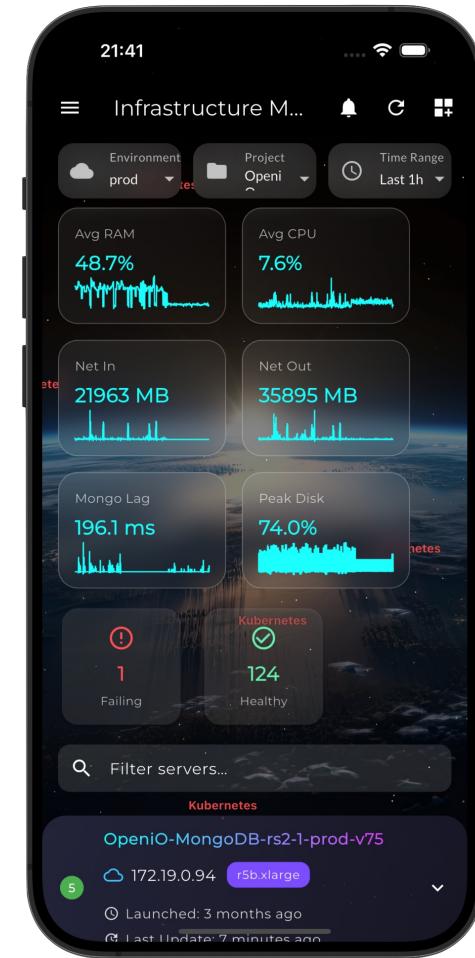
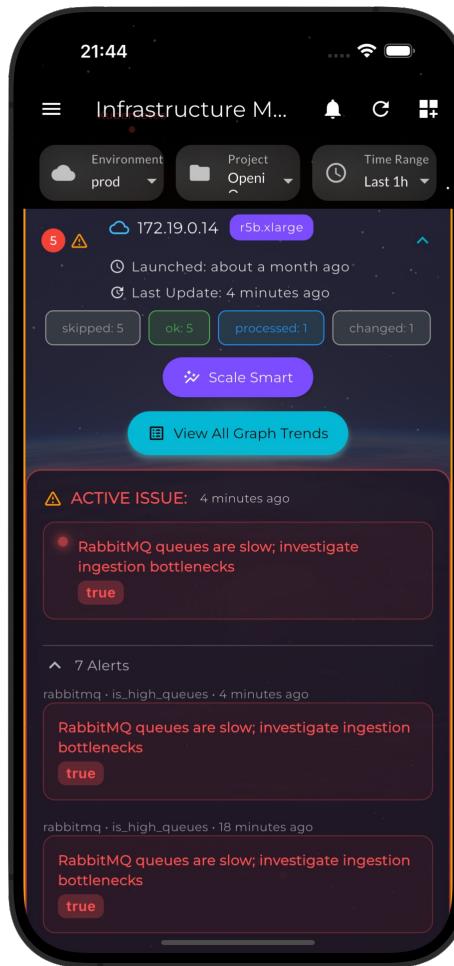
Analyze – Backend correlates signals against YAML thresholds, easily view previous issues



Act – Single UI lets operators acknowledge, resolve, or drill down

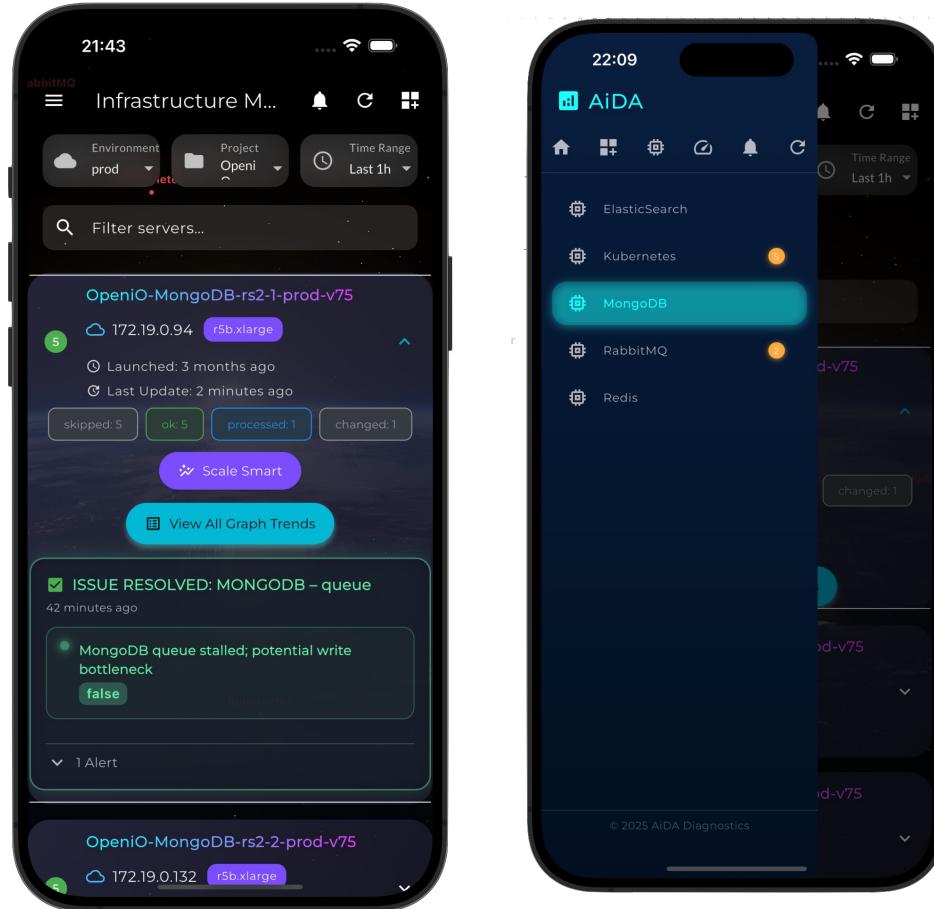


Metrics - CloudWatch metrics are automatically imported during each run and only the delta is stored in DB



Monitoring Dashboard Highlights

- Side navigation shows each program with issue updates every 5 minutes
- KPI chips summarize successes, failures, throughput
- Filters: Environment, Project, Time (1 h – 30 d)
- Real-timeline charts with tool-tips & zoom
- Diagnostics list with category, search & status filters
- Interactive Monitoring dashboard (env/project & time-range selectors)
- One-click actions: Acknowledge, Resolve, Cancel
- Notification drawer with read/unread tracking



High-Level Architecture



Ansible collector layer →
Push JSON payloads on a
schedule



Flutter Based User-
Interface



Secure API endpoints
(e.g.,
`/advanced_diagnostic/*,`
`/cluster_status/`)



Elasticsearch for
Database

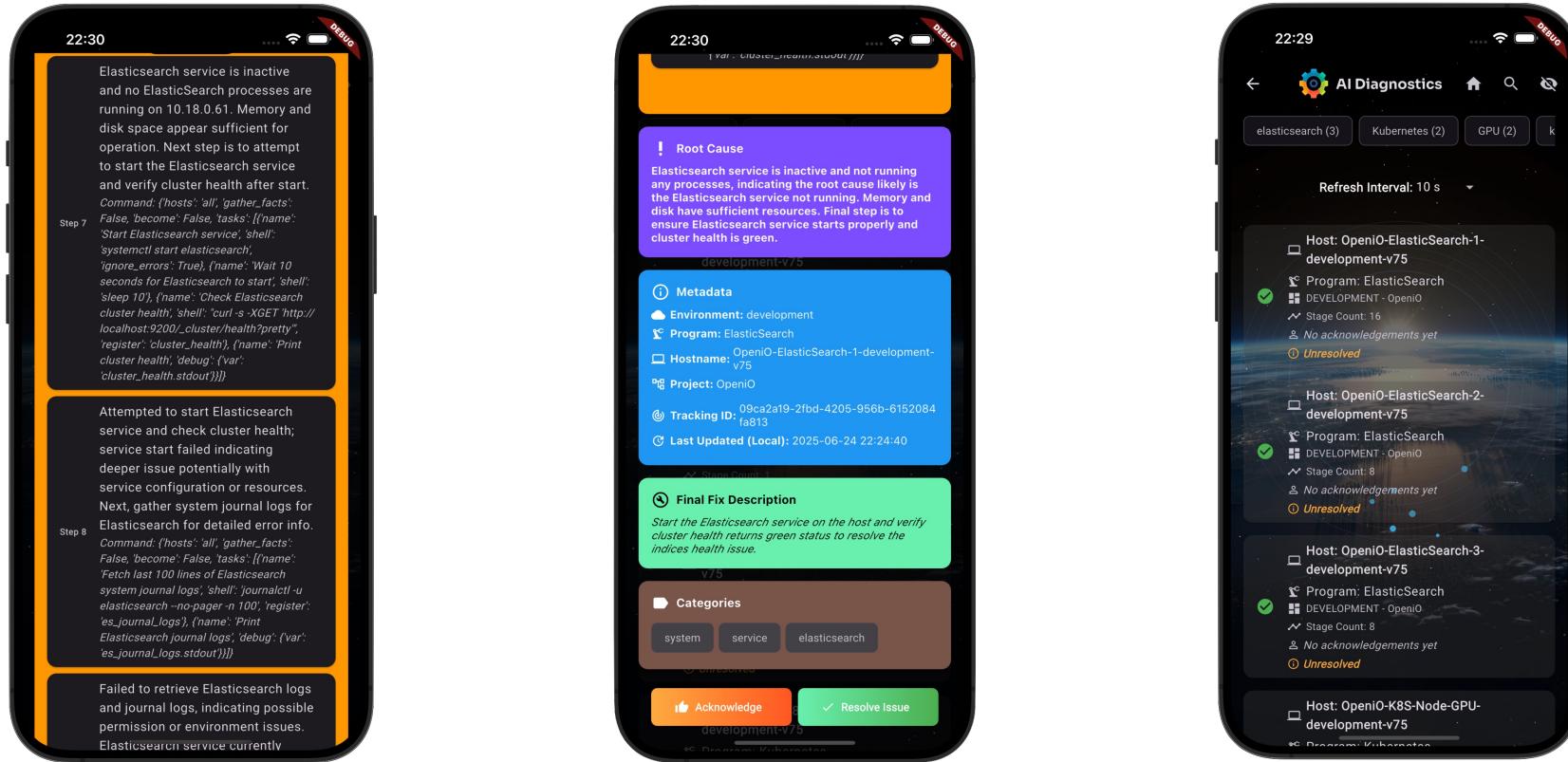


JWT tokens stored via
`flutter_secure_storage`

Key Features at a Glance

- Rich charts for GPU, RAM, Disk, Queues, Mongo {queue size, lag}, and more





Live Diagnostics Workflow

- Ansible pushes new issue → colored card & spinning icon highlights urgency
- Tap to view details: root cause, iterations, metadata
- Operator acknowledges so others know, then can hit resolve to let others know they reviewed the actions automatically taken by the autonomous AI.
- Record moves to Resolved view for audit trail
- Ansible Playbook are dynamically generated by the LLM.
- If given permission the AI can restart services for you.

Auto-scaling recommendations

- Recommendations based on CPU and RAM and network usage
- One click autoscaling
- Can scale in groups based on AWS tags like “MongoDB_ReplicaSet”, “Program”, custom.
- Safety mechanism, 30-minute cooldown period prevents scaling same instance.





Smart Alerting & Recommendations



- 40+ built-in checks (MongoDB, RabbitMQ, Kubernetes, NVIDIA, Disk, RAM) pulled via Ansible plugins
- YAML thresholds editable: \geq , \leq , \equiv
- Failing states grouped by service to surface root causes

Security & Extensibility



Ansible pull model – no inbound ports on servers;
secure token auth to API



Modular Flutter widgets →
add new charts & checks in
minutes



RESTful backend & JSON
responses



Webhooks & chat
integrations on the
roadmap. That integrates
into AI Diag.

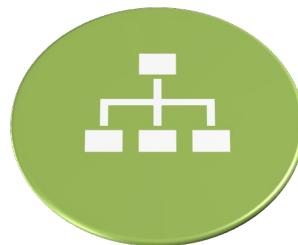
Business Value Delivered



What's Next



PREDICTIVE ANOMALY
DETECTION



ROLE-BASED ACCESS CONTROL
& MULTI-TENANT
WORKSPACES



OPEN-SOURCE SDK FOR
CUSTOM HEALTH CHECKS