MCP DEV SUMMIT NAIROBI · 20 NOVEMBER 2026

Map the journey, *not the API*

How one map of every system helps engineers and health teams find what went wrong for mothers

Ian Peter

Platform, Reliability & Security Infrastructure Engineer

Jacaranda Health

Session: One Protocol, Every Stakeholder

Enterprise Adoption + Integration

14:10–14:35 EAT



This is Millicent.

- 8 months pregnant
- History of stillbirth and preeclampsia
- Feature phone, no internet, low literacy
- Rural Kakamega

90%

of maternal deaths in Kenya are preventable

Her lifeline is an SMS.
It has to reach her, **at the right time.**

An AI-enabled SMS companion that *walks the journey with mothers*



Personalized SMS nudges: check-up reminders and danger-sign warnings, timed to her stage of pregnancy.

Rapid Q&A in Swahili, Twi and Hausa, escalating high-risk cases to hospital.

Feedback channel: mothers rate their care, shared with hospitals and government.

4.8m+
mothers reached

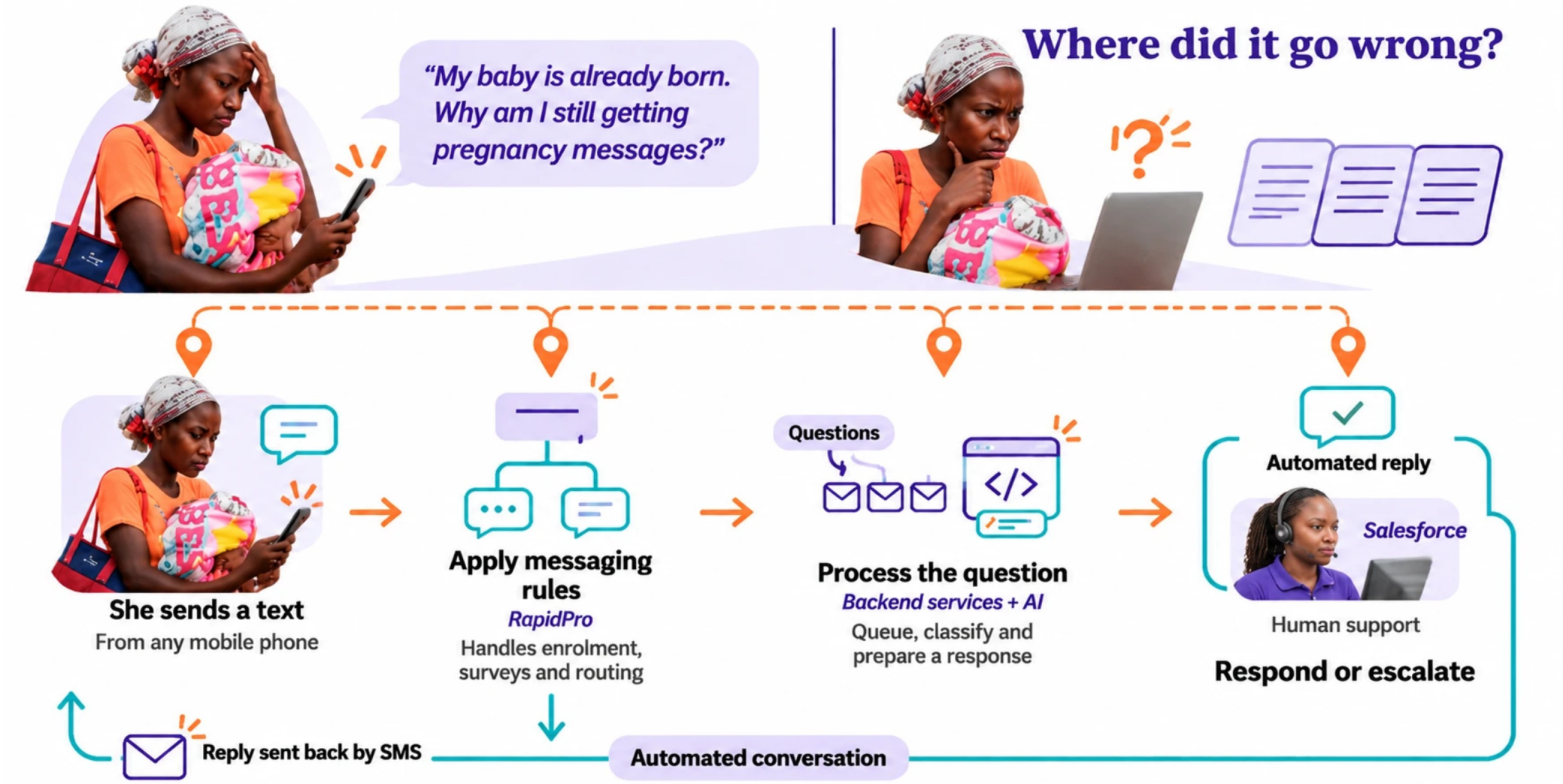
20k
questions a day

1,000+
public facilities

4
countries

BEFORE JH MCP

Every investigation started at the symptom, *not the cause*



JH MCP

One question. *Connected evidence.*

RapidPro • Turn.io • GitHub • AWS / GCP • Salesforce • Data & analytics

Map the journey

Follow connections across systems



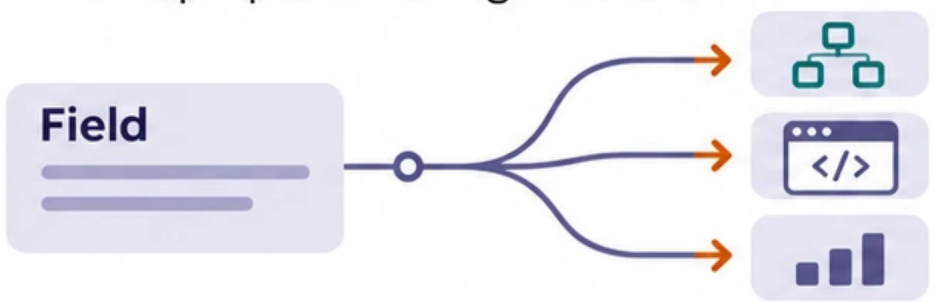
Investigate failures

Bring code, logs and metrics together



Anticipate change

See what a proposed change touches



Understand performance

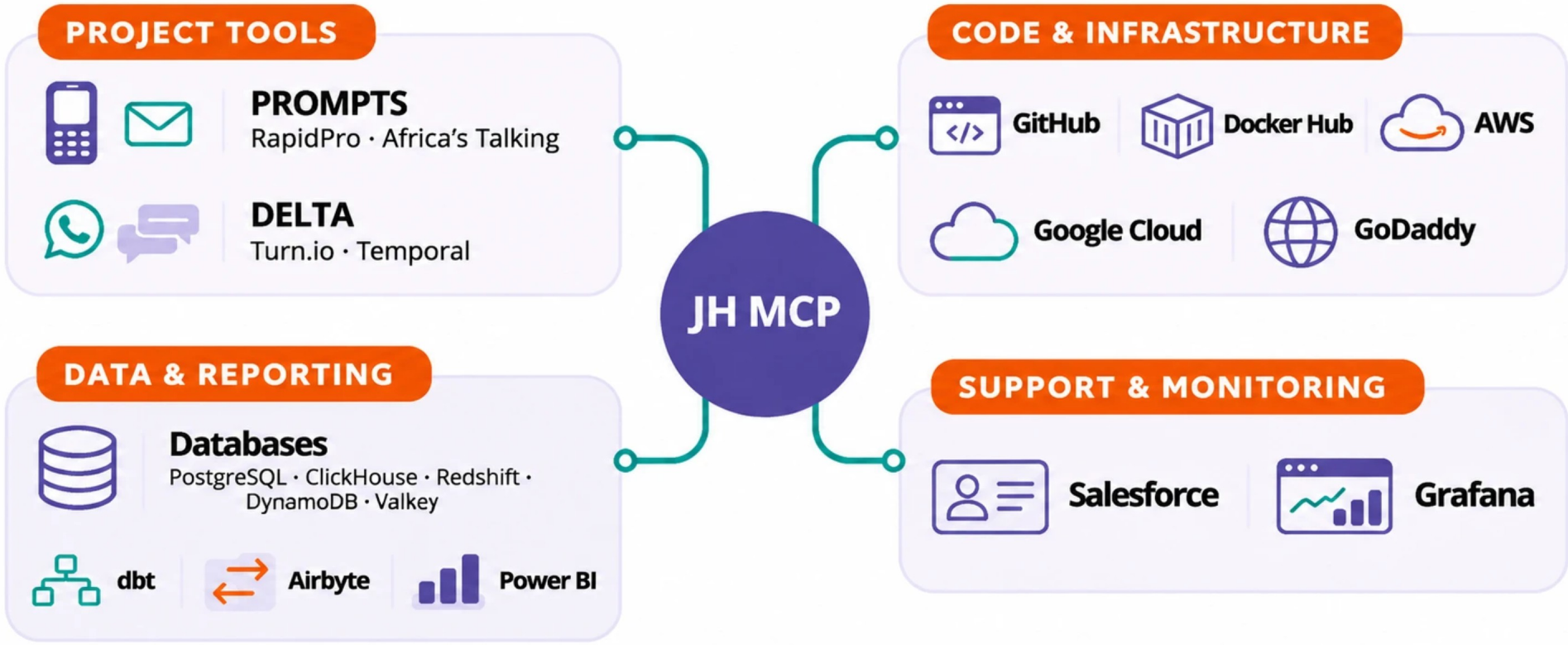
Explore delivery, costs and capacity



Read-only access | Protected messages and secrets | Source-linked evidence

Configuration shows intent. Runtime evidence shows what was observed.

All eleven systems *on one map*



HOW IT IS BUILT

Secure. Private. *Production Always Protected*

SECURITY



4 layers stop every write

Access follows who you are, not what the AI is told

PRIVACY



0 phone numbers or other PII ever returned

PERFORMANCE

65% always left for production



Queries stop at 5 · 60 · 600 seconds

ONE INVESTIGATION · THE DELIVERY-DATE MISMATCH

Two flows wrote the delivery date where *the code did not read it*

Two flows write		Code reads
`raw_edd`	≠	`edd`

EDD: estimated delivery date

From 13 August: wrong date, wrong stage, wrong message.

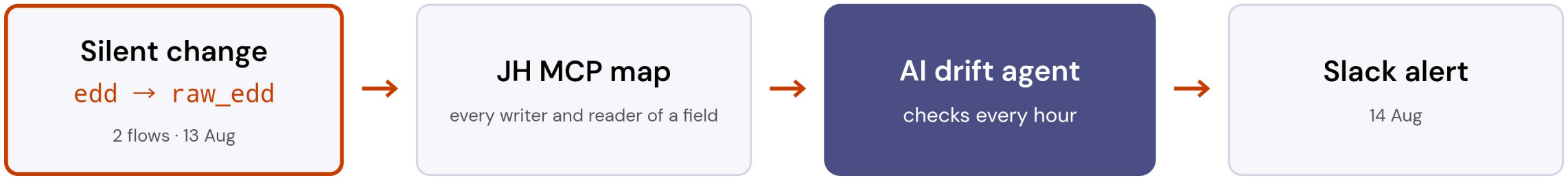
~57,000

mothers put in the wrong groups, set to receive the wrong messages

One silent change. The agent flagged it the next day.

ONE INVESTIGATION · HOW IT SURFACED

A silent change, *flagged by an AI agent*



Drift — Flows now write `raw_edd`. The code still reads `edd`.

Time to notice

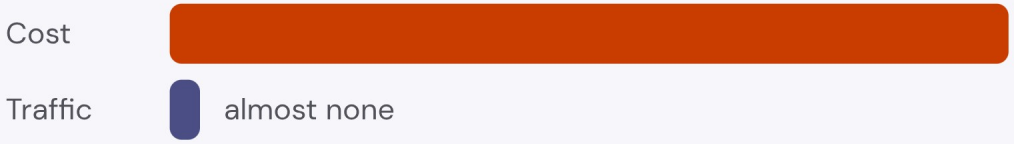
With JH MCP	1 day
Without it	Silent changes throw no errors. They surface downstream.

EVIDENCE OF IMPACT

Cost and risk, *caught across systems*

Cloud cost

USD 1,653 saved a month



MCP spots idle endpoint → Dependencies checked → Shut down

About USD 19,800 a year. Confirmed in billing.

Security

Overnight critical PHP alert to all fixes merged

- 21 Oct — PHP: two critical flaws
- Agent — Where do we run PHP?
- Found — Adminer in 4 dev setups
- 22 Oct — All 4 fixed by 9 a.m.

WHERE THIS IS GOING

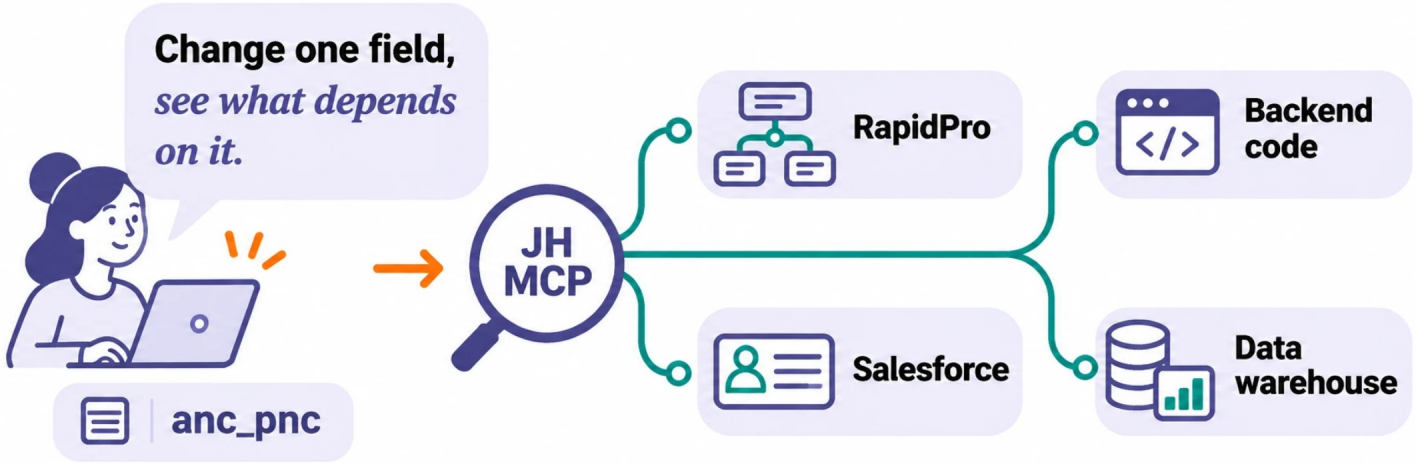
Agents watch. *Next, we test whether small models can match large ones.*



BEFORE	V1	V2 · TODAY	V3 · TESTING
People decide Ask five teams. Join answers by hand.	**People ask AI** One question, in plain words, across every system.	**Always-on agents** Grok Bot, ChatGPT Dots Flag Security issues with evidence	**Decision models** Small model + decision model: large-model results, lower cost?
Who makes the routine choices			
People	People / Large model	Large model	Small model / Decision model
			$ lower cost per answer

LIVE · ONE QUESTION ACROSS SYSTEMS

One question. *Every system it touches.*



Map the journey, not the API

Show freshness and gaps

Look first, act later

Thank you

Ian Peter · Jacaranda Health

CONTACT

plimo@jacarandahealth.org

linkedin.com/in/ianpeterlimo

FEEDBACK

Scan to rate this session