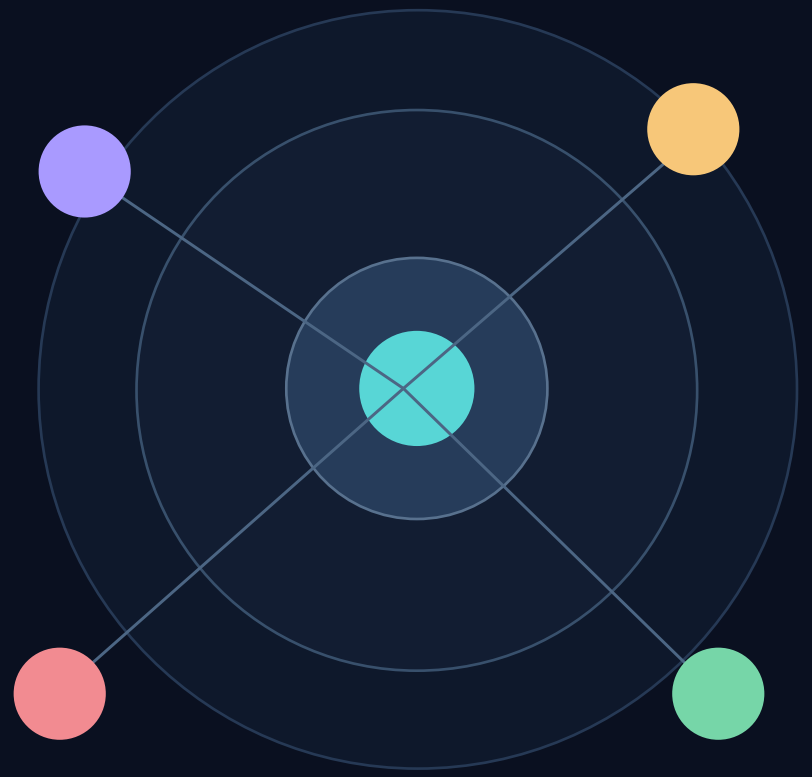
ENTERPRISE ADOPTION + INTEGRATION

Bridging Legacy Systems and LLMs

Practical Enterprise MCP Integration Patterns

Expose capabilities. Preserve control.

RUNNING EXAMPLE / JIRANI WHOLESALE & DISTRIBUTION · FICTIONAL NAIROBI COMPANY



BRIAN NDEGWA

MCP Dev Summit Nairobi · 20 November 2026 · Muthithu, 6th Floor

25-MINUTE TECHNICAL SESSION

FICTIONAL RUNNING EXAMPLE · JIRANI

Jirani's core systems were never designed for agents

Three depots run on a 12-year-old ERP. Staff need answers without replacing it.

THE BUSINESS

ERP · stock · supplier invoices
Finance · procurement · 3 depots

THE GAP

Legacy API contracts, status codes, and depot-level access rules

THE AGENT

Needs tools to find invoices, check suppliers, and prepare requests

REWRITE JIRANI'S ERP

High cost and operational disruption

EXPOSE RAW DATABASES

Too much access and tight coupling

BUILD EVERY CLIENT SEPARATELY

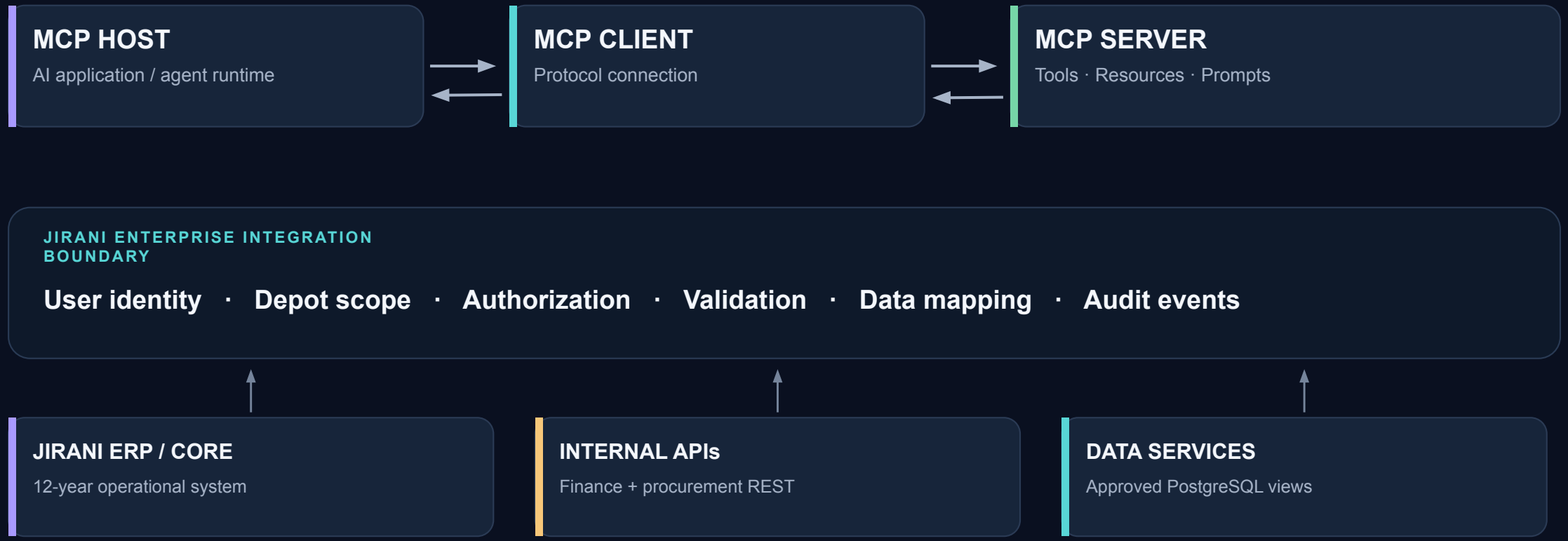
Duplicated integrations and drift

DESIGN PRINCIPLE **Give Jirani's agent a governed bridge to the systems it already trusts.**

FICTIONAL RUNNING EXAMPLE · JIRANI

Jirani's agent needs a governed route to the ERP

The assistant reaches finance and procurement through MCP — without replacing Jirani's core systems.



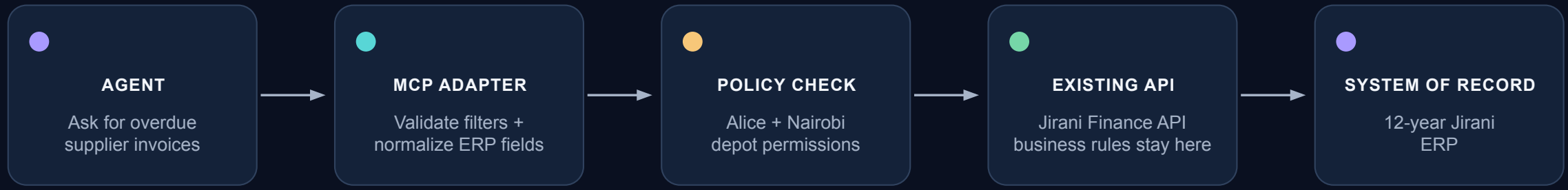
MCP 2026-07-28: stateless protocol core + header-based routing

Protocol ≠ permission

FICTIONAL RUNNING EXAMPLE · JIRANI

Wrap Jirani's finance API. Do not rewrite its ERP.

The adapter turns an existing invoice endpoint into a narrow, agent-ready MCP tool.



THE ADAPTER OWNS

VALIDATE
Check status + depot

NORMALIZE
INV_STS → overdue

BOUND
Nairobi scope + 20 rows

OBSERVE
Trace + audit IDs

Jirani's ERP remains the source of truth for every invoice and business rule.

FICTIONAL RUNNING EXAMPLE · JIRANI

Give Jirani's agent business tools, not database access

Model tools on employees' work; hide Jirani's legacy codes behind a stable contract.

AVOID

Infrastructure-shaped tools

execute_sql(query)

update_invoice(row)

generic_erp_command(...)

Broad, ambiguous, hard to authorize

PREFER

Business-shaped tools

search_invoices(depot, status)

get_supplier(supplier_id)

submit_purchase_request(...)

Narrow, meaningful, policy-friendly

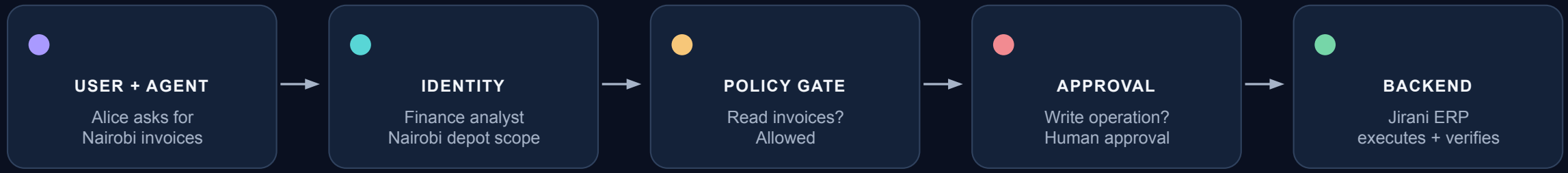
JIRANI ANTI-CORRUPTION LAYER

INV_STS = 04	→	status: overdue
DEPOT_CD = NRB	→	depot: Nairobi
AMT_LOC	→	amount

FICTIONAL RUNNING EXAMPLE · JIRANI

At Jirani, the model proposes. Policy decides.

Alice in Finance may read Nairobi invoices — but cannot approve a supplier payment.



AUDIT + OBSERVABILITY actor · agent · tool · depot scope · decision · approval · outcome · correlation ID

NO BLIND TOKEN PASSTHROUGH

Use credentials intended for each upstream service.

APPROVAL BINDS TO THE ACTION

Changed amount or supplier? Re-approve.

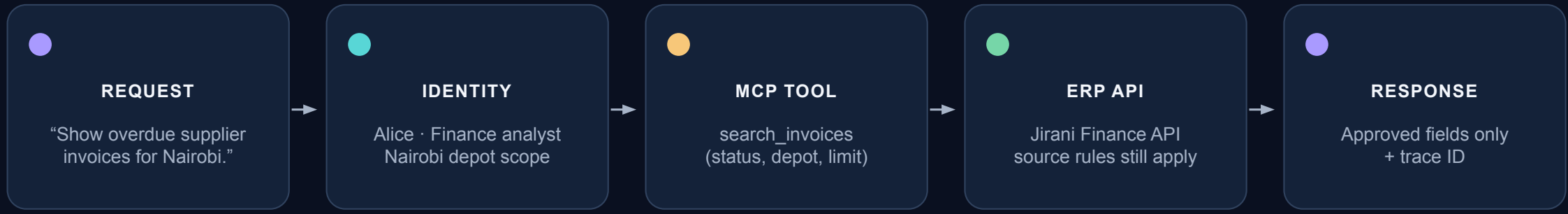
LOG DECISIONS, NOT SECRETS

Record decisions; minimize sensitive payloads.

FICTIONAL RUNNING EXAMPLE · JIRANI

One request. A governed path through Jirani’s ERP.

Alice asks: “Show overdue supplier invoices for the Nairobi depot.”



NORMALIZED RESULT

INV-2041 OVERDUE **KES 180,000** Due 14 Oct 2026

AUDIT RECEIPT

Alice · search_invoices · Nairobi · ALLOW

correlation_id: jirani-req-7f2a…

No raw SQL. No invoices outside Alice’s authorized depot scope.

FICTIONAL RUNNING EXAMPLE · JIRANI

Jirani earns the right to expand.

Start with read-only invoice search; add procurement actions only after controls are proven.

01

DISCOVER

Map finance APIs, depot scopes, staff roles, and data sensitivity.

→

02

EXPOSE

Wrap search_invoices as a read-only MCP capability.

→

03

GOVERN + TEST

Test identity, depot scope, denials, limits, logs, and failures.

→

04

EXPAND

Add supplier lookup, purchase requests, and human approvals.

MEASURE WHAT MATTERS

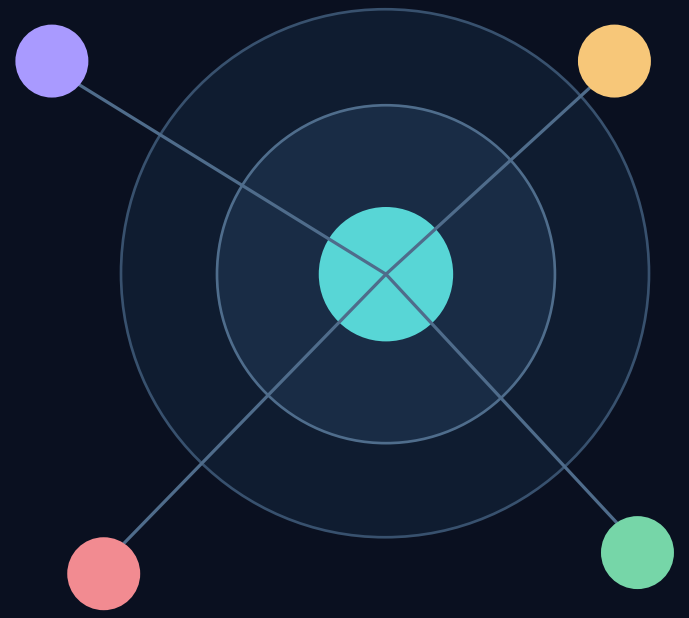
- Task success
- Denied / allowed accuracy
- Latency + availability
- Approval turnaround
- Audit completeness

Jirani begins with one useful workflow — not the entire ERP.

THE TAKEAWAY

Jirani didn't replace its enterprise systems. It connected them safely.

That's the opportunity for every enterprise.



- Preserve systems of record.
- Expose business capabilities.
- Enforce policy outside the model.
- Make every consequential action auditable.

BUILD THE BRIDGE. DON’T REBUILD THE ENTERPRISE.

Thank you.

CURRENT REFERENCES MCP specification (2026-07-28) · TypeScript SDK v2