

From data silos to *instant answers*.

A geospatial analytics platform used by state transportation departments, city planners, and public safety agencies needed to give non-technical users instant, secure answers from scattered operational data. 10Decoders embedded a dedicated AI team to design and build the assistant that does it.

Seconds

Answers in seconds, not days

One Sitting

Question to decision, not one week

6 Months

Architecture to production delivery

— AT A GLANCE

Client Profile

Client	Geospatial Analytics Platform
Domain	GIS · Transportation
Engagement Model	Embedded AI Team
Disciplines	AI/ML · Graph DB · Cloud · Full-Stack
Team	4 people — 1 Architect, 2 AI Engineers, 1 Full-Stack Developer
Duration	6 months, start to production

— OVERVIEW

Specialized talent, without *the overhead*

The client's data covers crash records, traffic volumes, road layouts, and pedestrian and cyclist infrastructure — valuable information that's often too technical for non-technical decision-makers to access directly. Every question from a non-technical user landed on an already-stretched analyst's desk.

10Decoders partnered with them to close that gap — embedding a dedicated AI team that built a faster path to their data without compromising security or accuracy.

— CHALLENGE & APPROACH

Fragmented data in, *plain-English answers out*

● The Challenge

- ✗ Crash, traffic, and infrastructure data scattered across systems and formats
- ✗ Context locked inside reports that were never built to be searched
- ✗ Every non-technical question landed on an already-stretched analyst's desk
- ✗ Speed couldn't come at the cost of security or accuracy

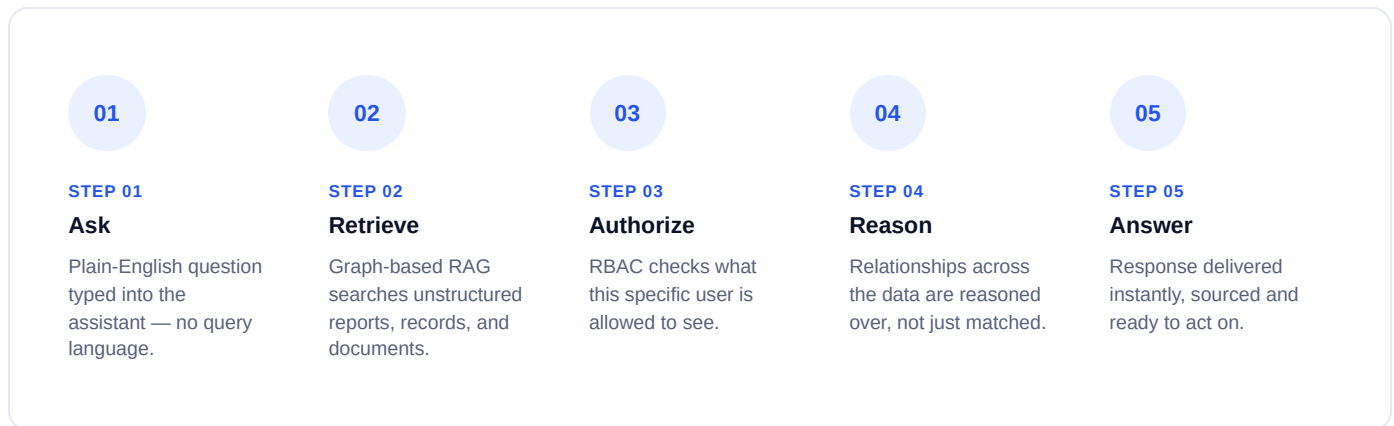
● Our Approach

- ✓ Unified transportation records, safety data, maps, reports, and documents in one place
- ✓ Built a graph-based agentic RAG layer that understands unstructured context
- ✓ Gave users a plain-English interface — no dashboards, no queries
- ✓ Layered in role-based access so sensitive data stays protected automatically

— HOW IT WORKS

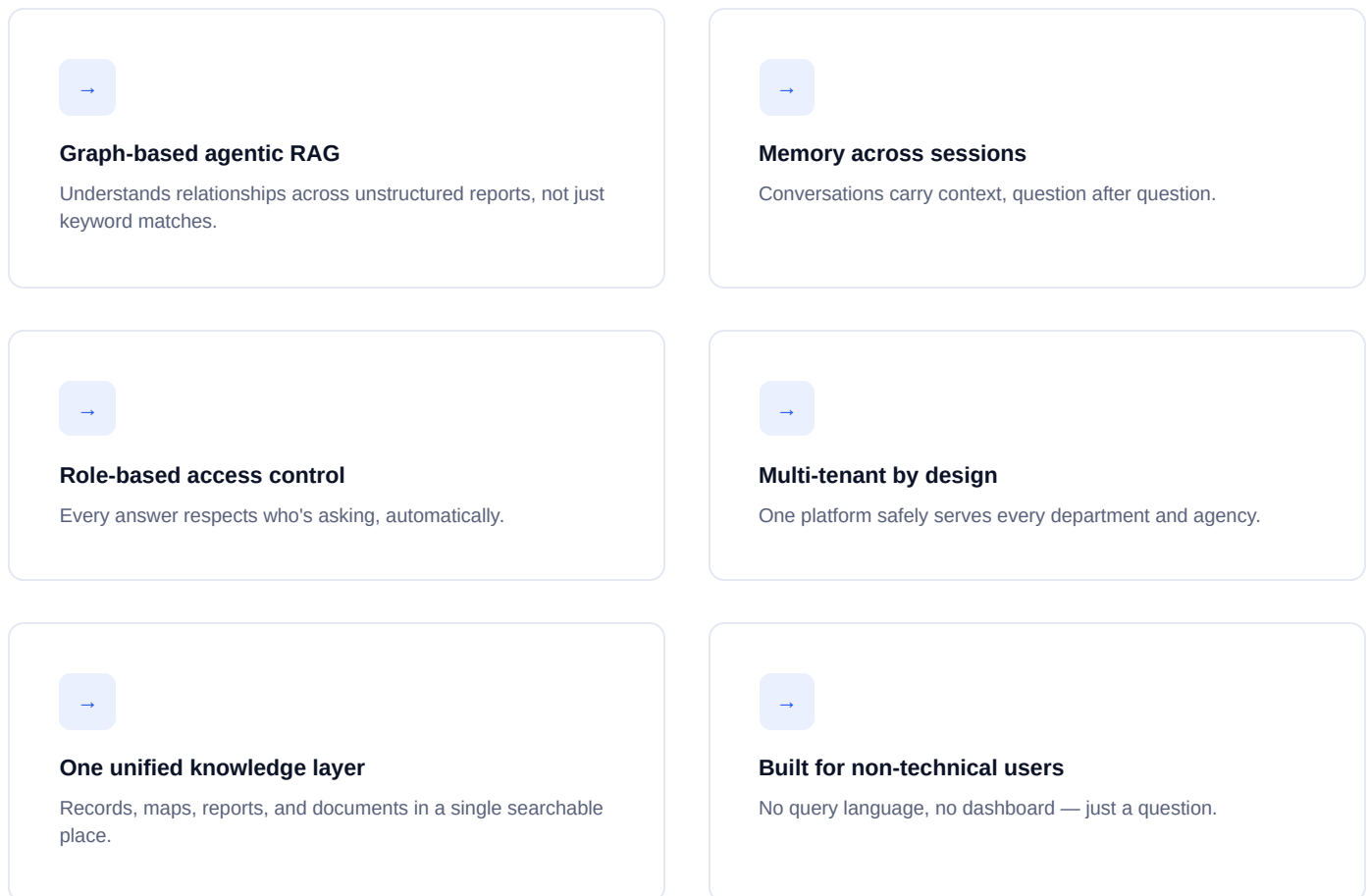
One pipeline from question to *answer*.

Every question flows through a single graph-based agentic RAG pipeline — matched against transportation records, safety data, maps, and reports, then delivered back in plain English.



— WHY IT WORKS

Built for trust, *not just speed*.



One assistant, *role-based answers*.

Each team gets what it needs from the same assistant — from field-level questions to department-wide oversight.

PLANNERS & OFFICIALS

Decisions in one sitting

- Question to decision without a week-long wait
- Plain-English access to crash, traffic, and infrastructure data
- No technical query language required

ANALYSTS

Time back for real analysis

- Fewer repetitive requests from non-technical users
- More time on work that needs their expertise
- Manual research now happens in real time

PLANNING, OPS & PUBLIC SAFETY

Data on their own terms

- Direct access without routing through anyone else
- Every answer respects role-based permissions
- One front door to records, maps, and reports

— RESULTS

From data to *decisions*.

Outcomes delivered by embedding a dedicated AI team directly into the product — no rip-and-replace.

Seconds

Answers in seconds, not days

One Sitting

Question to decision, not one week

6 Months

Architecture to production delivery

✓ Answers in seconds, not days

✓ Security stays intact, automatically

✓ Independence over dependency

✓ Built to grow with new datasets

— DELIVERY, COST & IP

Built right, *owned outright*.

DELIVERY QUALITY

- Delivered by a dedicated 4-person team: 1 architect, 2 AI engineers, 1 full-stack developer
- Built and deployed directly inside the client's own AWS environment
- Positive client appreciation received during in-person delivery reviews

COST & ROI

- A lean, dedicated team scoped to the engagement — not a generic bench
- Six-month build, from architecture through production-ready delivery
- Graph-RAG foundation is reusable, lowering the cost of adding new datasets

IP & SECURITY

- Full source code handed over to the client
- Role-based access control protects sensitive records automatically
- Hosted entirely within the client's own cloud environment — no vendor lock-in