What's next for ODBC connectivity in Synergy

Jeff Greene, CTO

Your existing ISAM data. More room to build.

Customer activity

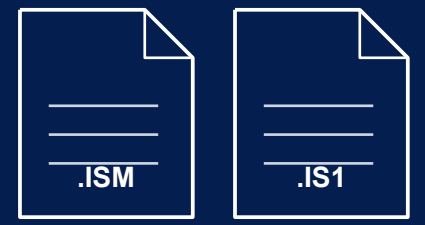
CUSTOMER	ORDER TOTAL
42	200.00
71	50.00

Illustrative application feature

GantrySQL

PostgreSQL connections

More work in SQL.
More room to build.



Existing Rev 6 files

DBL application

The workarounds became design rules.

xfODBC: decades of live SQL access. A licensed foundation with limits.

SQL-92 entry-level + extensions · licensed Trifox technology

A FAMILIAR WORKAROUND — LOGIC YOUR APPLICATION CARRIES

Fetch customers → **Fetch orders** → **Join + total in code**

THE ANSWER

```
42 → 200
71 → 50
```

GANTRYSQL — RELATIONAL WORK IN THE SQL ENGINE

Declare the result → **Plan · Execute · Explain**

THE SAME ANSWER

```
42 → 200
71 → 50
```

The engineers supporting your query can change the engine.

Change the connection. Keep the files.

The SQL service changes. Your existing file access stays connected.



Existing storage. Existing source-file backup and recovery.

SYNERGY 2026 DEVPARTNER CONFERENCE

The mapping gives the bytes their meaning.

A customer ID links the record to orders. The layout makes that ID usable.

ONE CUSTOMER RECORD / 14 ASCII BYTES




```
42 → orders.customer_id
```

Repository

Your field and key definitions

MetaDataTool

Generate the mapping

SQL catalog

Register the live file as a table

SAME RECORD. SAME COUNT.

```
001250
```

Scale 2 → 12.50

Check a business value you already know.

Scale 0 → 1,250.00

Carry familiar SQL into the new engine.

West order totals since 1 October 2026

Worked example

```
SET gantry.trifox_compat_rewrite = on;
```

Compatibility enabled

```
SELECT  c.id, SUM(o.amount) AS total
FROM customer c
JOIN orders o ON o.customer_id = c.id
WHERE c.region = 'WEST'
  AND o.order_date >= $1
GROUP BY c.id ORDER BY c.id                    LIMIT 10
```

Same ordered result

42	200.00
71	50.00

Selected legacy forms are translated before planning.

Permissive GROUP BY still needs a deliberate business choice.

First, make the work smaller.

West customers · orders dated ≥ 2026-10-01

Illustrative choices · ANALYZE supplies estimates; EXPLAIN shows the chosen plan.

Few customers: seek their ranges

`Existing key: (customer_id, order_date)`

Cust.	Date	Order	Amount
42	09-28	105	30
42	**10-02**	**101**	**120**
42	**10-09**	**102**	**80**
71	**10-11**	**103**	**50**
94	10-04	104	90

42

71

Broad input: build once, then probe

Date-filtered orders

Order	Cust.	Amt.
101	**42**	**120**
102	**42**	**80**
103	**71**	**50**
104	94	90

West customer IDs

42	71

Build the lookup once.

`94 → no match`

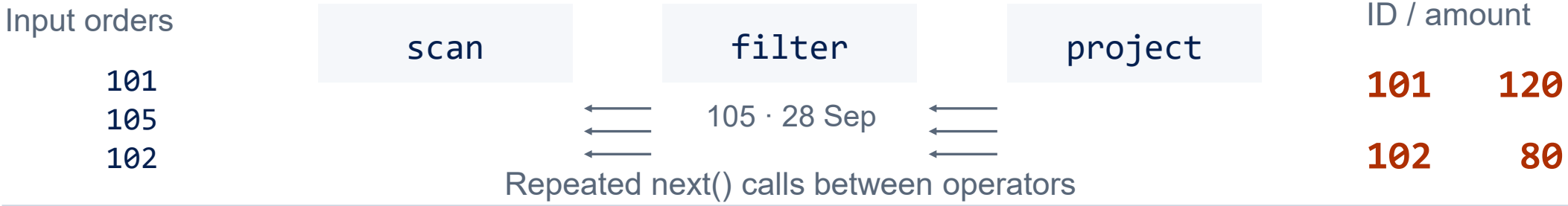
42 → 200.00 **71 → 50.00**

SYNERGY 2026 DEVPARTNER CONFERENCE

Then, keep useful work together.

Order scan · $1 = 1 October 2026 · keep the ID and amount.

CLASSIC ITERATOR MODEL



GANTRYSQL · AN ELIGIBLE FUSED REGION



Reuse the instructions. Read today's data.

Prepared-query experiment · West-customer totals

Execution 4 · test edit to order 103

Bound date

`2026-10-08`

Test order 103

`71 · 60.00`



Fresh result

42	`80.00`
71	`60.00`

The code is reused. The result is freshly computed.

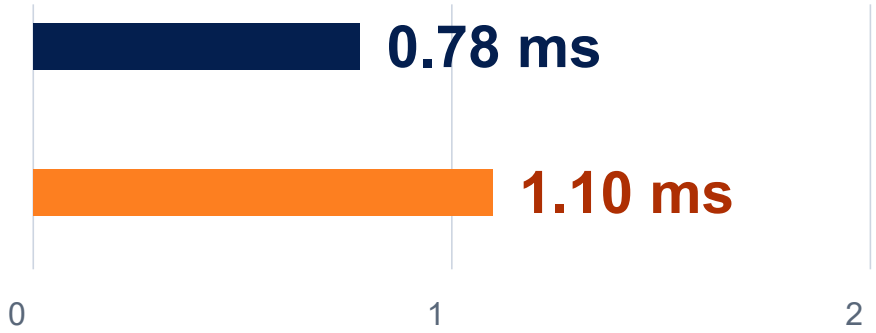
The performance story depends on the work.

D1 · 13 Oct 2026 · warm, matched ODBC results · existing connections · full-result latency

xfODBC / Trifox GantrySQL / PostgreSQL ODBC

Keyed lookups

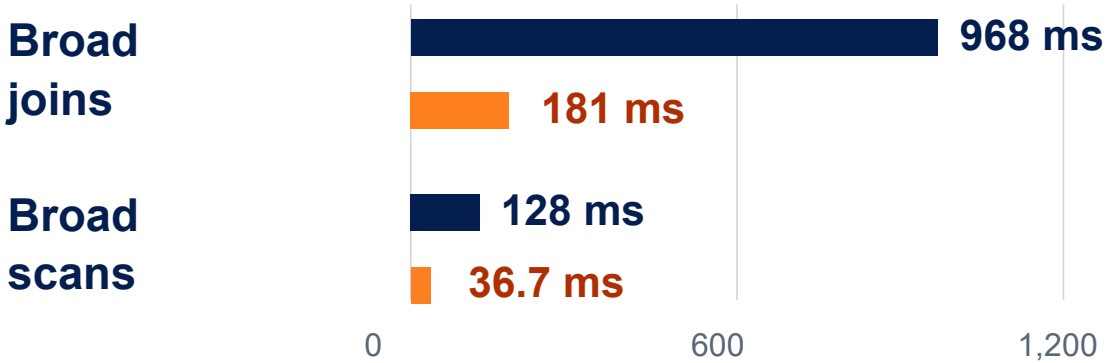
Expanded scale: 0–2 ms



A small gap, repeated on each call.

Work across many records

Separate scale: 0–1,200 ms



Larger gains in scans and joins.

Indexed ranges and small joins can also favor Trifox.

A fast query can still be your biggest workload.

Illustrative investigation · one customer-screen refresh

10 ms × 1,000 calls



10 s

1 s × 1 call

1 s total

Accumulated query duration · illustrative values

West order totals

SCHEMATIC PLAN

```
Key: customer + date
Orders: 101 · 102 · 103
42 → 200      71 → 50
```

The keys bound the work.

One refresh. One result.

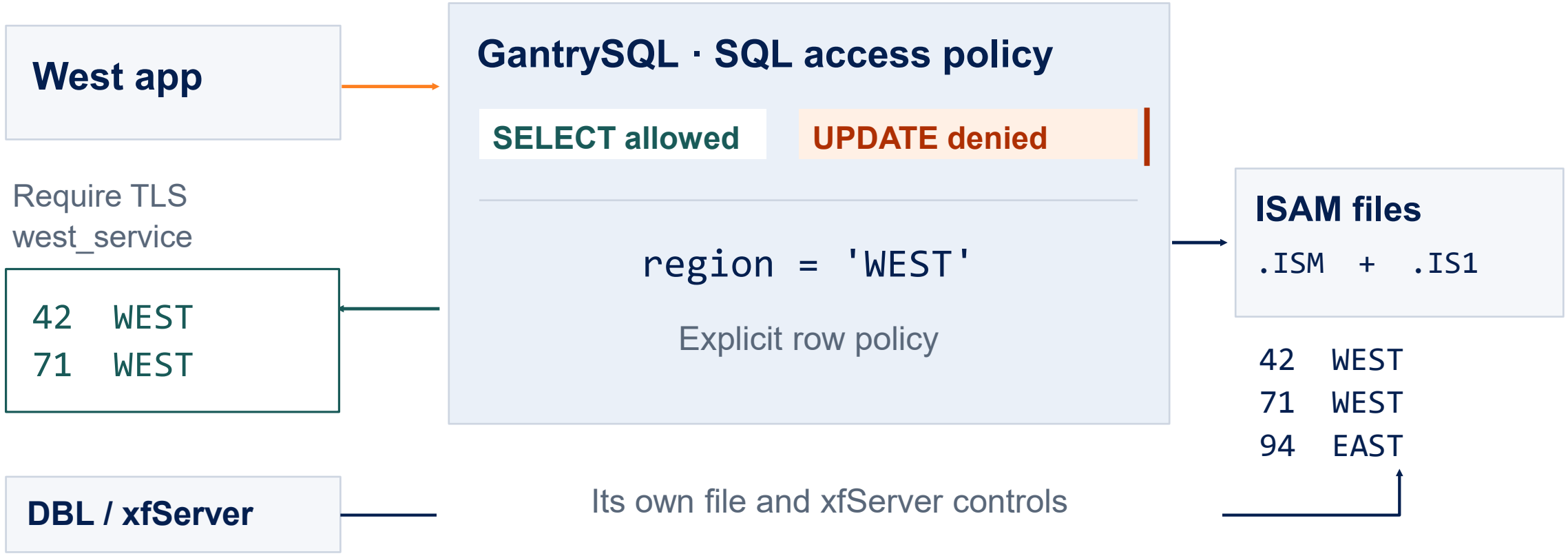
1 query → **One shared result for this refresh**

Alert on an unexpected rise in calls.

Enable SQL telemetry history.
Set the rule in your monitoring.

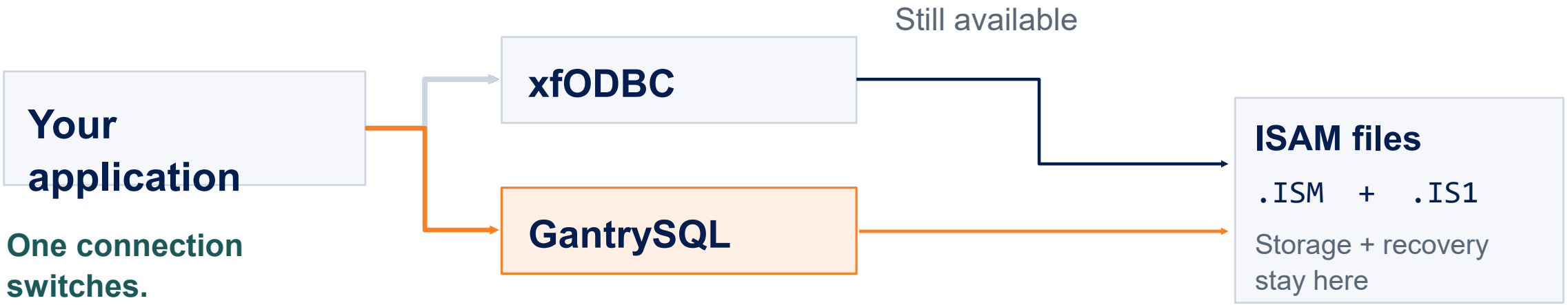
One shared file. Access shaped for each application.

Example: a West-branch application that may read, but may not write.



Move a workflow. Keep the files and a comparison.

Pilot: the customer-history view · read-only application workflow



One Repository

- Legacy catalog
- Gantry mapping

Verify known values

Controlled record: 42 balance

`12.50` = `12.50`

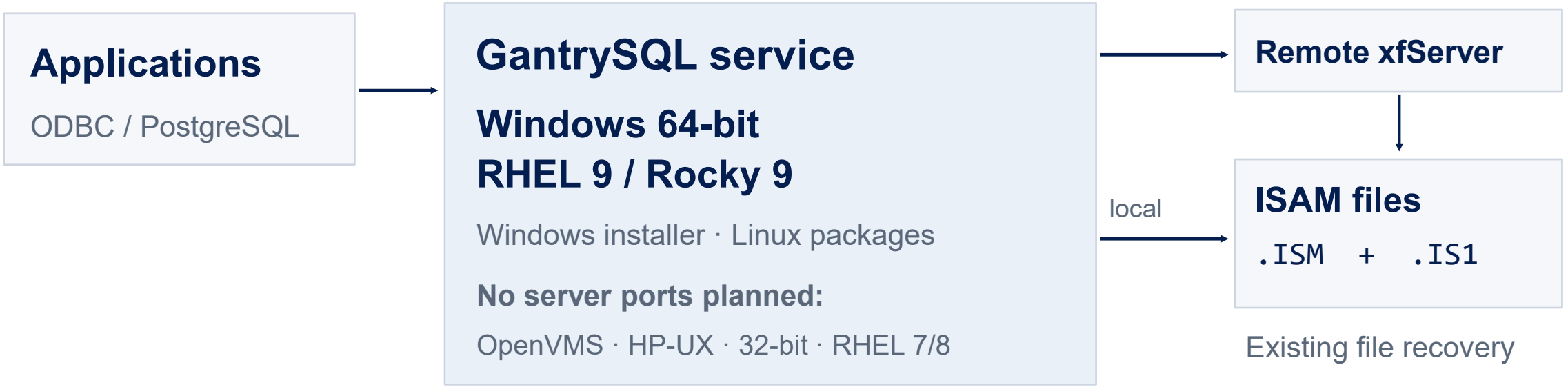
DBL SQL

Then measure load

Same inputs
Full results
Interleaved runs

Fit the service to the estate you already run.

Client platform, SQL service and file host are separate choices.



Existing xfODBC entitlement · SDB12



One seat per open connection.
Idle pool connections count.

Reuse a bounded pool.

D1 · new connection + query

xfODBC 8.0 ms Gantry 78.5 ms

Start with what you want to build.

The same live records can become a richer customer conversation.

Customer activity

West · orders since 1 Oct 2026

CUSTOMER	ORDER TOTAL
42	200.00
71	50.00

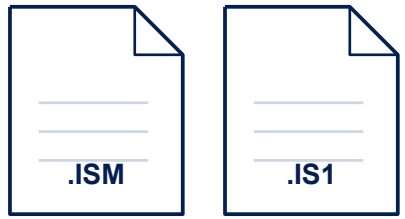
Application · partner integration · operational view

GantrySQL

Join · filter · total

A reusable SQL view

customers + orders remain in place



Bring us the feature you want to build next.

50 years of engineering support. Now inside the SQL engine.