Data Warehouse Modernization with Swarm64 DA-accelerated PostgreSQL
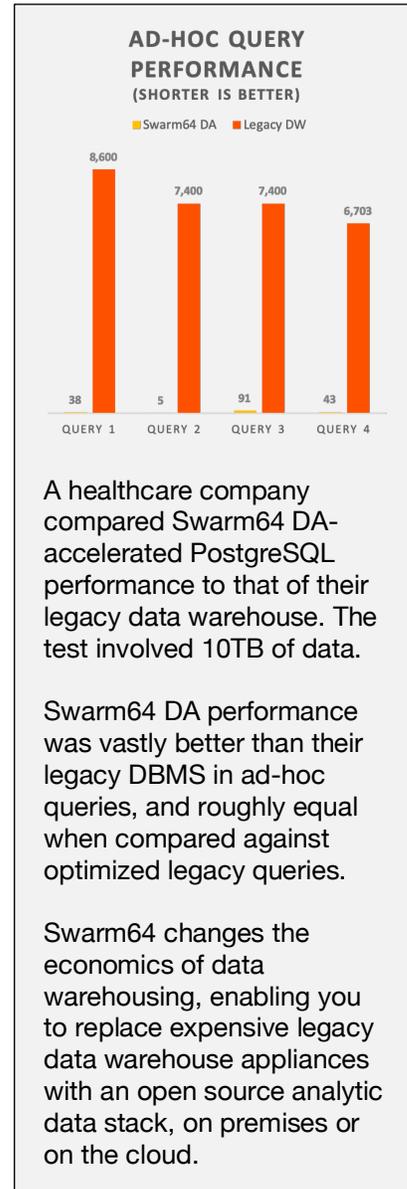
Break free from costly legacy analytic databases

Legacy data warehouses built on proprietary platforms like Oracle, Teradata, and Netezza can cost millions per year to maintain.

Swarm64 Database Accelerator (Swarm64 DA) is a drop-in extension that speeds up open source PostgreSQL by orders of magnitude, enabling it to perform as fast as legacy data warehouses for a fraction of the cost.

Why modernize data warehouses with Postgres?

- **Reduce database costs by 10x** – The annual maintenance fees charged by your legacy data warehouse appliance or DBMS vendor can total hundreds of thousands of dollars. You can reduce that annual expense by nearly 10x by switching to Swarm64 DA-accelerated PostgreSQL.

- **Boost innovation** – It's an open source-first world. New analytic and DBMS technologies are being launched for open source communities like PostgreSQL much more rapidly than they are for legacy databases. Your data-driven business agendas will move forward faster on PostgreSQL.

- **End lock-in** – The PostgreSQL ecosystem offers an enormous marketplace of innovative extensions, tools, and services. You no longer have to be at the mercy of your legacy DBMS vendors' pricing, product roadmaps, and supported hardware and cloud platforms. Enjoy the freedom of Swarm64 DA-powered analytics on open source PostgreSQL.

AD-HOC QUERY PERFORMANCE
(SHORTER IS BETTER)
■ Swarm64 DA ■ Legacy DW

QUERY 1: 38 / 8,600
QUERY 2: 5 / 7,400
QUERY 3: 91 / 7,400
QUERY 4: 43 / 6,703

A healthcare company compared Swarm64 DA-accelerated PostgreSQL performance to that of their legacy data warehouse. The test involved 10TB of data.

Swarm64 DA performance was vastly better than their legacy DBMS in ad-hoc queries, and roughly equal when compared against optimized legacy queries.

Swarm64 changes the economics of data warehousing, enabling you to replace expensive legacy data warehouse appliances with an open source analytic data stack, on premises or on the cloud.

How Swarm64 accelerates PostgreSQL

Greater Parallelism
Swarm64 DA increases the number of available parallel workers by 5x. It also executes queries in parallel at every phase of the query, from scanning, through filtering, joining, merging, and aggregation.
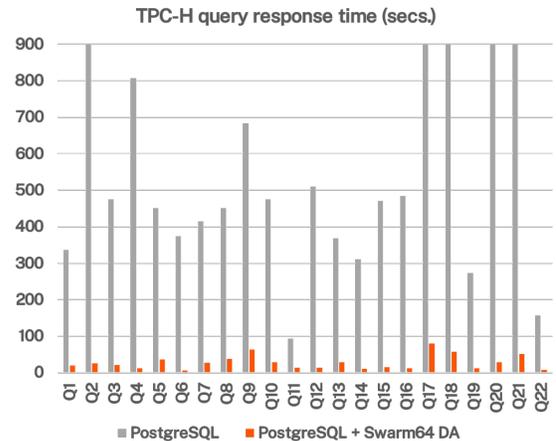
Compressed columnstore indexing
Columnstore indexes cache the data of the related PostgreSQL table in a compressed columnar format. Columnstore indexes greatly reduce I/O and improve CPU utilization, leading to much faster query execution.

Faster SQL JOINs
Swarm64 DA implements optimized SQL JOIN algorithms, which run 3x faster than regular JOINs and require half the memory. This enables you to join billions of rows in seconds.

TPC-H query response time (secs.)

■ PostgreSQL   ■ PostgreSQL + Swarm64 DA

Fast BI & reporting tool performance
Business intelligence (BI) and reporting tools use SQL cursors to provide fast, interactive query results to users. Swarm64 DA enables Postgres to execute cursored queries in parallel for better, more responsive BI experiences for users.

Swarm64-accelerated Postgres, the fastest path to data warehouse modernization

Columnstore indexing and other Swarm64 DA acceleration features make PostgreSQL more compatible with analytic (OLAP) and hybrid analytic-transaction processing (HTAP) capabilities of other data warehouse platforms.

Combined with the abundance of legacy database migration tools and support available in the PostgreSQL community, Swarm64 DA gives customers an easy way to modernize legacy analytics and business intelligence data platforms.

"Swarm64 DA reduced our query times from minutes to seconds and made it possible to run incredibly complex queries."

Dr. Volker Ruerup
Managing Director, Patent-Pilot

Next Steps

Swarm64 DA installs as an extension to PostgreSQL (or EDB Postgres Advanced) versions 12 and 13 on premises or on cloud platforms. For more information or to try Swarm64 DA for free, please visit Swarm64.com or contact us at info@swarm64.com.