

SQREAM DB V3.0 FOR IBM POWER

SQream DB v3.0 introduces advanced GPU-accelerated SQL analytics with a variety of capabilities: dynamic workload management, direct and flexible analysis of Parquet data, tight integration with a variety of BI tools like Tableau, Spotfire, and Qlik, and optimized GPU-accelerated JOINS on any number of tables and columns.

SQream DB on IBM Power systems is on average 150% faster than existing x86-64 based systems

ADVANCED GPU-ACCELERATED SQL ANALYTICS

Organizations today have access to vast quantities of data from a variety of sources. To maximize their competitive advantage, organizations must translate their ever-growing data stores into insights. SQream DB provides data professionals a revolutionary way to explore and rapidly analyze their vast data.

- GPU-accelerated analytical functions enable fast, flexible querying of raw data, minimizing time-spent on data preparation.
- Advanced SQL support including CTEs, window functions and regular expressions simplifies deployment of the BI pipeline by allowing more complex queries to run directly on the data, instead of in your application.
- Nested GPU-accelerated JOINS with any number of tables and any number of keys give data scientists the tools they need to correlate huge amounts of data.

IMPROVED RESOURCE MANAGEMENT ON EXTREME DATASETS

SQream DB has proven success in big data analytical projects at extreme scale. SQream DB v3.0 introduces a Dynamic Workload Management functionality, which allows organizations to ensure they manage compute resources wisely by allowing on-the-fly changes to resource allocation. This feature lets IT and DBAs guarantee the highest quality-of-service to those who need it the most.

EASY DEPLOYMENT ANYWHERE

SQream DB runs anywhere. As more and more customers deploy big data in the cloud, SQream DB is now optimized for the public cloud. Recently released on Alibaba Cloud and Microsoft Azure, as well as AWS and IBM. This release makes it easier to manage resources on cloud GPU instances, enabling customers to easily get started with analytics in the cloud or on premise. To ease deployment, SQream DB is now also offered as a docker image.

ON-PREMISE HARDWARE

SQream recommends rackmount servers by server manufacturers Dell, HP, Cisco, Supermicro, IBM, and others.

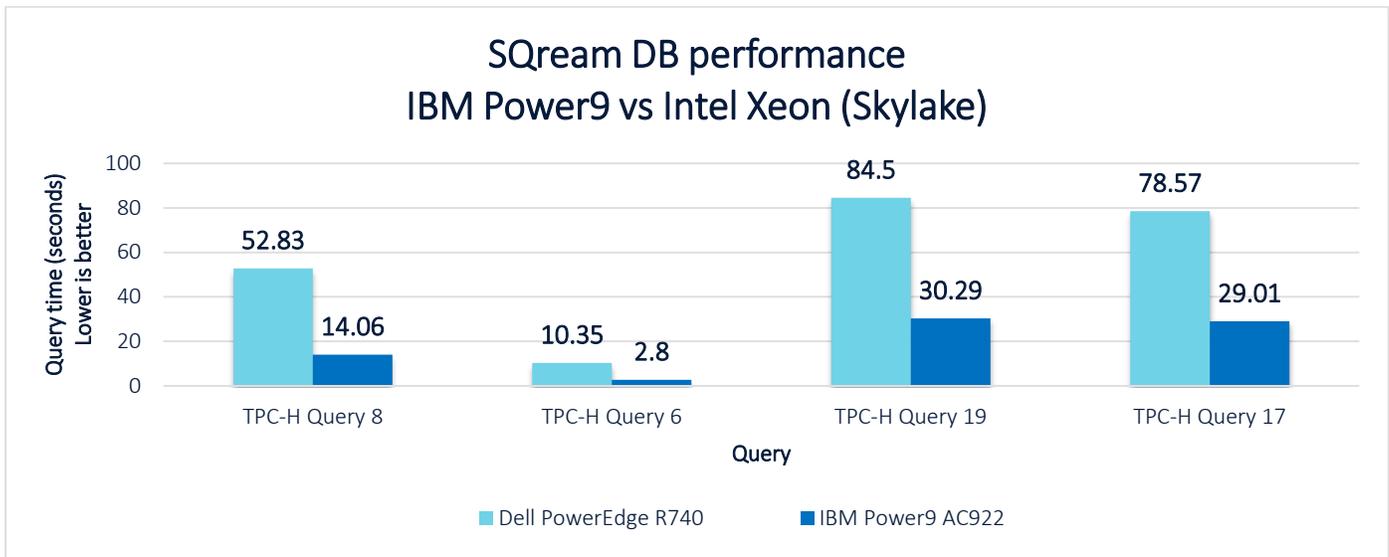
A typical SQream DB node includes:

- **CPU compute:** High performance processor, like dual IBM® Power9 processors, providing the high performance required for compute-bound database workloads. SQream DB can also run on the Intel® Xeon® Gold processor family.
- **GPU compute:** NVIDIA Tesla GPU accelerators, with up to 5,120 CUDA and Tensor cores, running on PCIe or fast NVLink bus, delivering high core count, and high-throughput performance on massive datasets
- **Storage:** In a SQream DB installation, the storage and compute are logically separated. NAS/SAN storage is preferred,
- **Operating System:** SQream DB can run on 64-bit Linux operating systems, including RHEL, Amazon Linux, and Ubuntu

MORE RESPONSIVE DASHBOARDS, FASTER QUERIES

IBM and NVIDIA's NVLink interconnect improves I/O bandwidth by up to 9.5x compared to PCI Express, resulting in faster queries, more responsive dashboards. Additionally, SQream DB v3.0 introduces a wide variety of new general-purpose optimizations designed to make the most of modern compute platforms, like NVIDIA Tesla Volta on IBM Power9. Notoriously difficult queries like multi-table joins and count distinct operations are faster than ever before, with some queries up to 8.6x faster, even on hundreds of terabytes of data.

SQream DB v3.0 on Power9 reduces heavy analytical query times by up to 3.7x in our testing, on complex benchmarking queries.



HIGH SPEED INGEST AND QUERYING – 40% FASTER THAN BEFORE

SQream DB is designed for high speed ingest, without compromises. Existing customers who are used to 2TB/hour per GPU will now experience ingest speed of up to 3.3TB/hour. That's because SQream DB v3.0 improves load performance by another 40%, on both Parquet and flat files. SQream DB can load files of any size without chopping them up. IBM Power9 customers see average loading speed up to 2x faster than leading x86 based systems.

TRY SQREAM DB FOR YOURSELF

SQream DB is the only GPU-accelerated database purpose-designed for performance at scale, with speed and ease-of-use as primary considerations. SQream DB lets you run queries on terabytes to petabytes up to 100x faster than any other database technology, at a fraction of the cost.

Our proven petabyte-scale technology fits in any BI pipeline and is built to make use of widely-adopted SQL standards, along with ODBC, JDBC, and Python connectivity to any BI/ETL tool. Use SQream DB to gain comprehensive insights into your big data.

Download the SQream DB White paper (info.sqream.com/download-sqream-db-white-paper) to learn more about how SQream DB can help you analyze more data than ever before, or contact us to speak with one of our database experts - visit sqream.com/try-sqream-db for more information.