BIG DATA ANALYTICS LIKE NEVER BEFORE
SQREAM DB ON IBM POWER9
Forbes reports that for a typical Fortune 1000 company, just a 10% increase in data accessibility will result in more than $65 million in additional net income. So why aren't organizations analyzing more data when the insights are so critical for their business?

Most data warehouses were designed before the big data explosion, and struggle to support modern workloads. To make due, many companies are cutting down on their data pipelines, severely limiting the productivity of data professionals. There is frequently a trade-off between coarser data granularity and faster querying that makes future fine-grained drilldown analysis impossible. These restrictions compromise the quality and accuracy of the analytic results, and end up costing businesses millions in missed insights and lost profits.

Addressing the major drawbacks of traditional data warehouses requires a new solution, designed around modern methods and cost-effective, high-throughput technologies.

THE NEW APPROACH TO DATA EXPLORATION

SQream DB harnesses the power of NVIDIA GPUs and IBM Power9 with NVLink technology to perform fast, flexible, and cost-efficient analysis of massive datasets. The powerful trinity results in advanced performance, with SQL query performance improvements of up to 150% compared to GPU-equipped x86 servers - with reduced cost and system complexity.

The solution empowers data professionals to broaden their queries, breeze through terabytes to petabytes of raw data, save time on data-preparation, and extract previously unobtainable insights into customer behavior, security anomalies, risk analysis, stock and inventory predictions and more.

With standard SQL syntax as well as ODBC, JDBC, .NET, Node.js and Python connectivity, SQream DB is already supported by your ecosystem – either on-premise or on the cloud.
HOW IT WORKS

SQream DB’s Load-and-Go high-throughput architecture and best-in-class compression lets you focus on your data rather than the infrastructure: Just load data in, and it’s ready to be queried immediately. No pre-computations necessary. The system’s transparent metadata collection and always-on adaptive GPU compression takes care of the rest, enabling BI analysts and data scientists to query any piece of data immediately.

SQream DB is easy to deploy, with advanced SQL support including CTEs, window functions and regular expressions. The full support allows simple and complex BI pipelines alike to run analytic queries directly on the raw data, offloading complex logic to the high-throughput data warehouse.

UNMATCHED SCALABILITY

Companies should have the freedom to decide how much capacity they need, both in storage and in compute. SQream DB stores data on-disk, in a shared-data architecture that eliminates the need for distribution keys or creating projections. Compute is decoupled from storage, with scaling available for just storage, just compute, or both. Growing the system in either direction doesn’t affect the data availability or integrity, which means SQream DB can scale to virtually unlimited data sizes.

SQream DB can run on the IBM Power9 AC922 server with up to 6 GPUs per node. As your needs grow, so can your system. Scaling storage is as easy as adding additional scale-out storage nodes. Scaling compute is as easy as adding another node, with no downtime required.
SQream DB ON POWER9: 4X FASTER QUERIES, 2X FASTER LOAD

On the NVLink-enabled Power9 architecture, the TPC-H derived benchmark results are dramatic. Complex queries are about 4x faster, and load time is almost 2x faster, with no changes or tuning.

![SQream DB performance - IBM Power9 vs Intel Xeon (Skylake)](image)

The IBM Power9 with NVLink provides faster queries and faster load times than a similar priced and configured Intel x86-64 based server. The already excellent cost-performance of SQream DB gets even better.

![Load time for 6 billion TPC-H records (10TB)](image)

SQream DB’s high-speed bulk load saves data engineers time on preparing and loading data. Once data is ingested as part of the Load-and-Go process, it is immediately available for querying. No intermediate steps are required, allowing data consumers to obtain business-critical insights faster.

GET STARTED WITH SQREAM DB ON IBM POWER9

SQream DB and IBM Power9 are a great match for high-throughput big data warehousing. IBM Power systems are found in 80 of the top Fortune 100 companies including top banks, retailers, insurance and healthcare. Bring the power of SQream DB to your business with a free trial in the cloud or on-premise at https://sqream.com/try-sqream-db.