

TROVARES: UNMATCHED SPEED AND SCALE FOR GRAPH ANALYTICS

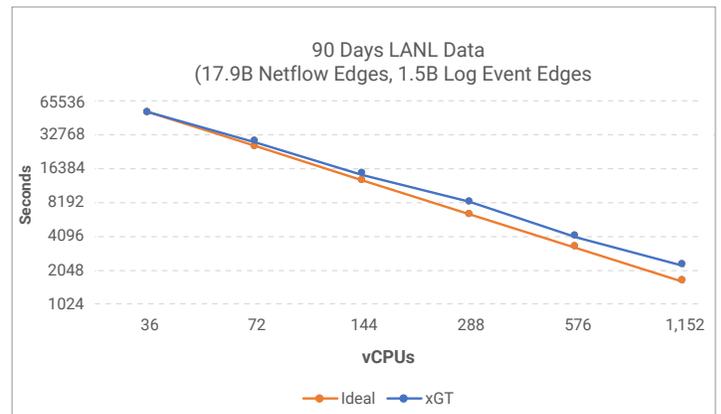
Trovares offers a new type of graph analytics tool which returns search queries hundreds of times faster than conventional graph tools. It supports extremely large in-memory graphs for fast queries. Built on supercomputing technology, Trovares derives maximum performance for cyber, fraud detection, government, and other applications.

Trovares xGT: Extreme performance

Trovares xGT is not a graph database, it's a tool. It enables the direct ingest of data into the system and avoids database performance issues. xGT adopts supercomputing techniques such as extreme multithreading and fine-grain locks to achieve orders of magnitude increases in speed and scale.

In a recent application xGT achieved near linear scalability when querying 3 terabytes of cyber data with 20 billion graph edges and 212 billion edge properties. On another benchmark, the tool demonstrated orders of magnitude improvements in speed, reducing query time

from 179 hours to 12 minutes. xGT outperforms conventional tools on datasets of all sizes but excels when data exceeds a billion records.



xGT achieves near linear scalability, 100 percent utilization of every CPU, in the tested system.

Performance: Parallelism and optimization

Extreme parallelism allows the tool to schedule work efficiently across thousands of cores. Trovares' engineers have spent years perfecting multithreaded code for supercomputing. For xGT they have brought parallelized code from high performance computing to graph analytics.

While traversing trillions of edges, xGT uses optimization to pare the search space for greatest efficiency. By quickly removing irrelevant data from searches, xGT accelerates queries multiple times faster than those of non-optimized searches. Parallelism and optimization produce search results hundreds of times faster than conventional graph analytics tools.

HPE Superdome Flex: Performance at scale

Trovares has focused on delivering performance at scale on Symmetric Multiprocessor (SMP) systems such as HPE's Superdome Flex. Today a single system can range in size from 3 to 48 terabytes of memory and more than a thousand threads of execution, providing the balance of memory capacity and processing capability to meet the demands of scaling graph search performance. The HPE Superdome Flex platform is built on industry standard x86 processor technology and PCIe-based IO to enable high performance ingest of data and support for the full range of software needed to complete a workflow around the Trovares xGT tool.

Applications: Cyber and fraud

xGT is in use today by the Department of Defense. It's ideally suited for applications with large datasets and time constraints such as cyber security and fraud detection. In cyber, 20 terabytes of log data per day is commonplace for many companies. That's why daily scans for threats are becoming more difficult.

Conventional graph tools limit companies to sampling a slice of their log data rather than the whole thing, or querying the data over days, not hours. In both cases companies expose themselves to undue risk.



xGT surfaces characteristics of large networks in seconds. This representation of xGT query results was produced using Graphistry data visualization tool.

Fraud detection, by comparison, requires pattern matching on very large datasets of transaction data. The fraud risk grows with every hour that data is not examined for indicators of fraud. xGT lets companies search all their log transaction data daily.

GET STARTED:

Unmatched speed and scale make xGT uniquely qualified for the largest data analytics assignments. Find out how cyber, fraud, government, and other applications benefit from xGT performance

Schedule a demo at info@trovares.com