



ACCELERATING DATA-DRIVEN BUSINESS WITH INSIGHT AND ANALYTICS

Discover the potential of enterprise data analytics



TigerGraph is the only native parallel graph database that is engineered for real-time analysis of data at enterprise scale. As part of the HPE Reference Architecture for Accelerated Graph Analytics, TigerGraph offers key advantages:

- Expedites data loading to build graphs quickly
- Speeds execution of graph algorithms
- Real-time capability for streaming updates and insertions
- Ability to unify real time analytics with large-scale offline data processing
- Ability to scale up and scale out for distributed applications

TURNING DATA INTO VITAL INSIGHTS

Implementing new ways to gain faster, deeper, and wider insights from data is now a critical business strategy. The quicker the data can be utilized, the quicker the insights. To accomplish this, companies are investing in a new type of technology that can support the most demanding and diverse workloads. The right infrastructure for analytics can unlock the untapped potential of enterprise data, helping companies achieve a competitive advantage through improved efficiency and productivity, smarter decision-making, and accelerated innovation.

Though the use of data in decision-making has become an essential part of business success, enterprises struggle to make full use of their data without robust infrastructure and analytics tools. According to a 2021 DATAVERSITY report, 99.5% of data collected is never analyzed. 89% of enterprises believe they risk losing market share and momentum by not adopting a data and analytics strategy. Despite this, 69% of these companies have not created a data-driven organization, and 52% are not competing on data and analytics. Only 14% of enterprises make analytics broadly accessible to their workforce.

Analytics is playing an increasingly significant role in all industries, enabling companies to make more informed and strategic decisions about how to improve operations, optimize global supply chains, hone their products and services, heighten security and reduce risk, and better serve customers. Today, data is being generated at an exponential rate from a growing number of sources. The explosion of information offers opportunities to gain value through insight and analytics, but only if companies have the right technologies in place.

ADOPTING AN INTELLIGENT COMPUTE FOUNDATION

Hewlett Packard Enterprise and AMD are empowering companies with new levels of intelligence. We developed advanced analytics solutions that are designed to turn your data into vital insights everywhere. Our groundbreaking solutions help drive data center transformation in industries around the globe.

A purpose-built analytics infrastructure enables companies to draw deep connections between data entities in real-time and scale performance to solve complex problems quickly. Graph analytics is an important component of these solutions, which analyzes data in a graph format to enable faster decision-making, including automated decisions. Gartner predicts that graph technologies will be used in 80% of data and analytics innovations by 2025. Many of the world's top companies are already using HPE and AMD solutions with

Solution overview



Using Xilinx Graph Analytics libraries and Xilinx Alveo accelerator cards, HPE DL385 Gen10 Plus v2 servers with AMD EPYC processors can perform highly intensive graph analytics and machine learning algorithms. Xilinx accelerator cards are adaptable to changing workload requirements and algorithm standards, capable of speeding up any workload without changing hardware, and helping reduce TCO.

TigerGraph for risk mitigation, supply chain optimization, customer satisfaction, and other applications. TigerGraph supports transactional and analytics workloads, is ACID compliant, and scales up and out with automatic data partitioning.

TigerGraph and HPE have also teamed with Xilinx to accelerate computationally intensive graph algorithms with Xilinx Graph Analytics libraries and Xilinx Alveo accelerator cards. Data scientists can reduce time to insight by an order of magnitude without leaving [TigerGraph GSQL](#).

With a combination of leading-edge technology, deep expertise, and a broad ecosystem of partners, companies can realize better business outcomes through analytics. Our extensive portfolio of solutions can be configured to fit each organization's specific data requirements and ramp up or down with the needs of their business. These next generation tools give enterprises the game-changing ability to uncover relationships, patterns, and insights at scale in order to increase business value and enable success in a data-driven world.

UNPARALLELED COMPUTE INFRASTRUCTURE

The HPE Reference Architecture for Accelerated Graph Analytics features workload optimization, heightened data security, and built-in intelligence for faster and smarter innovation. The solution enables cutting-edge use cases such as personalized product recommendation, fraud detection, and Customer 360. Companies across all industries can leverage hardware-accelerated graph and machine learning capabilities that were previously limited to enterprises with hyperscale technology.

The HPE Reference Architecture for Accelerated Graph Analytics is built on [HPE ProLiant Gen10 Plus servers](#) to perform any analytics task. Based on decades of engineering experience, these powerful systems are density-optimized to deliver extreme compute for your massive data workloads.

The [HPE ProLiant DL385 Gen10 Plus v2 server](#) is redefining price-performance with the new math for enterprise compute. These are the first systems to incorporate advanced networking, management, and support services in order to provide a consistent experience and increased economic control across hybrid cloud data center infrastructure. Now, you can harness tremendous agility and reliability from edge to cloud to accelerate how you solve problems.

HPE ProLiant DL385 Gen10 Plus v2 servers are powered by [3rd generation AMD EPYC™ processors](#), delivering a dramatic increase in performance over the prior server generation. New AMD EPYC processors are [breaking world records](#) in performance for demanding data and analytics workloads. This includes collecting and analyzing troves of data, enabling simpler and more efficient data modeling, and accelerating real-time insight at scale. HPE ProLiant servers based on AMD EPYC processors can provide outstanding processing power, so you can deploy an advanced analytics solution that can save on hardware and software costs without sacrificing exceptional compute capacity.



Solution overview

RESOURCES

[HPE Reference Architecture](#)
hpe.com/psnow/doc/a50003860enw
hpe.com/psnow/doc/a00115929enw
amd.com/en/processors/epyc-server-processors-for-databases-and-analytics
xilinx.github.io/graphanalytics/index.html
xilinx.github.io/graphanalytics/install.html
hpe.com/us/en/services/consulting.html
hpe.com/us/en/greenlake.html
tigergraph.com/gsql/

HPE ProLiant Gen10 Plus servers are the [world's most secure industry standard servers](#), backed by the HPE silicon root of trust which creates a unique digital fingerprint in the silicon that prevents your system from booting with compromised firmware. [AMD Infinity Guard](#) offers a multilayered approach to security including [Secure Encrypted Virtualization \(SEV\)](#) to help protect data in virtualized environments, [Secure Memory Encryption \(SME\)](#) to help safeguard against certain physical attacks, and Secure Nested Paging (SEV-SNP) to help prevent hypervisor-based attacks.

SIMPLIFIED DEPLOYMENT AND MANAGEMENT

The HPE Reference Architecture for Accelerated Graph Analytics offers built-in intelligence to simplify and automate IT management tasks. The HPE ProLiant Gen10 Plus server does this by collecting information on its operations and sharing it through a standards-based API with tools for higher-level management, optimization, and orchestration as well as real-time tuning recommendations for maximum performance. Backed by our intelligent servers, managing your solution has never been easier.

For additional support, [HPE Pointnext Services](#) are available to help you create a comprehensive strategy for analytics innovation. HPE Pointnext Services experts work with you to define your business goals, identify potential roadblocks, and select the right technologies to deliver the insights you need to succeed. Beyond traditional deployment and financing options, [HPE GreenLake](#) offers the compute, analytics capabilities, and support for the HPE Reference Architecture for Accelerated Graph Analytics as a service. This consumption-based model allows you to pay only for what you use and as well as plan ahead for changes in capacity to avoid overprovisioning. With metering and capacity management, the resources required for each analytics workload are ready to deploy in minutes, not months.

CONCLUSION

Enterprises are disrupting their industries by tackling the new frontier of analytics. By harnessing faster, deeper, and wider insights everywhere, today's companies are transforming their operations.

At HPE and AMD, our goal is to help you realize more value from your data. That is why we have developed a winning platform for insights and analytics that delivers exceptional performance, foundational security features at the hardware and firmware level, and intelligent automation—all at a low total cost of ownership.

Let HPE and AMD help you turn insights into business opportunities. [Visit us online](#) to get started.

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