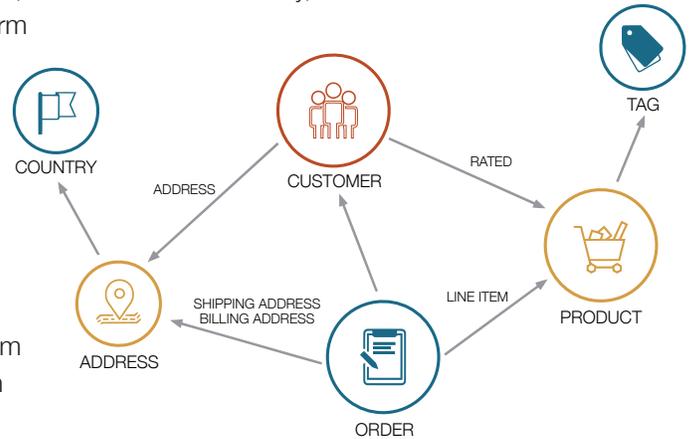


MODERN APPLICATIONS AND THE RELATIONSHIP-FIRST DATA EVOLUTION

Digital disruption continues to transform the way businesses need to respond to customer demands, and the data fueling the solutions is both increasing in complexity and continually evolving. Modern enterprise applications demand continuous performance gains and adaptive processing of complex, distributed, and even more so today, related data.

Graph data management systems are adaptive by design to perform efficiently on evolving, complex, relationship-first data and help businesses succeed in today's digital world.

Graph data modeling is based on naturally occurring relationships between data elements. Common use cases include: fraud prevention, customer 360, Internet of Things (IoT) predictive maintenance, and recommendations. Data elements are represented as "vertices," relationships as "edges," and descriptive characteristics as "properties." Graph queries surface pathways from the steps in a sequence of related events, and they perform well on complex, disparate datasets that consist of many interrelated data elements.



DATASTAX ENTERPRISE GRAPH

Modern business applications require a breadth of functionality, including an integrated, adaptable, and performant data layer that can process fast-moving data at scale. DataStax Enterprise (DSE) Graph is a distributed graph database that is optimized for fast data storage and traversals, zero downtime, and analysis of complex, disparate, and related datasets in real time.

Higher value from your data assets: Designing graph models positions your business solutions for the relationship-first data evolution. DSE Graph is fully integrated with advanced search and analytics components to provide higher-value answers from your related data assets on-premises or in the cloud and increase your ROI.

Continuous Intelligence, Optimal for ML/AI: DSE Graph comes bundled with tools to help you develop graphs, integrate ML/AI and create graph models, and understand the connectedness of data as it evolves. DSE Graph is flexible and can adapt to continuous changes in your data models to help you more effectively and efficiently achieve ongoing, intelligence from your data.

Enterprise-grade, distributed data layer: DSE combined with DSE Graph provides a data layer that is adaptive and focused on the connectedness of your data, while also providing always-on, secure, contextual, real-time, and highly scalable data processing. DSE Graph enables the ability to start building in one model and layer in a new model without requiring expensive data movement.

DATASTAX ENTERPRISE GRAPH

<p>Graph-Powered Insights</p> <p>Integrated real-time search and analytics allow you to derive powerful insights from relationship-first data models.</p>	<p>Graph Your Way</p> <p>Real-time Gremlin query language, visual tools and Apache Spark simplify graph analytics</p>	<p>Graph Available Always</p> <p>Integrated real-time search and analytics allow you to derive powerful insights from relationship-first data models.</p>
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“MissionGraph™ is a powerful and innovative open-architecture platform for making sense of messy data landscapes and finding unknown connections among an enterprise's entities. Key to our architecture are DataStax Enterprise Cassandra and Graph which enable us to fuse two of the most powerful technologies for handling the disparate forms of information we analyze. With them, we deliver contextual, distributed, always-on data management and cutting edge analysis at scale for our clients' most critical business questions.”

— Adam Judelson, Deloitte

KEY PRODUCT FEATURES

Solving graph problems requires more than just a graph database. DSE Graph is built in Apache Cassandra™ to take advantage of all the benefits of Apache Cassandra™ and DSE's proven optimizations. DSE is tuned for real-time performance, zero downtime, with advanced security and encryption options, and is built to deliver contextual results at scale.

PRODUCT FEATURES	DESCRIPTION
Scalable for large graphs and high volumes of users, events, and operations	Graphs stored in DSE Graph scale with the number of machines in the cluster because the DSE database provides the distributed storage layer. Graphs can contain hundreds of millions of vertices and billions of edges. DSE Graph can manage petabytes of information and thousands of concurrent users, events, and operations per second.
Support for high volume, concurrent transactions and operational graph processing (as in OLTP)	The capacity of DSE Graph scales with the number of machines in the cluster and answers complex traversal queries on huge graphs in milliseconds.
Support for global graph analytics and batch graph processing (as in OLAP)	Support for global graph analytics and batch graph processing through the Spark framework.
Integration with DSE Search	Integrated with DSE Search for efficient indexing.
Support for geographic, numeric range, and full-text search	Support for geographic, numeric range, and full-text search for vertices and edges on large graphs.
Native support for Apache TinkerPop and Gremlin query language	Native support for the popular property graph data model exposed by Apache TinkerPop , and for the graph traversal language Gremlin .
Remote query capability via DSE and Gremlin server	Run complex queries on DSE Server remotely, eliminating round trips for greater performance.
Performance tuning options	Numerous graph-level configurations provide options for tuning performance.
Vertex-centric indexes provide optimal querying	Vertex-centric indexes allow optimized deep traversal by helping to reduce search space quickly.
Optimized disk representation	Provides an optimized disk representation to allow for efficient use of storage and speed of access.

DSE Graph is included in the DataStax Advanced Workload Pack and is fully integrated with the DataStax Search and Analytics engines, and is bundled with DataStax In-Memory and Analytics Solo components. DSE Graph customers receive Enterprise Expert Support and have access to the DataStax Graph Practice team for specific graph services and training options.

ADDITIONAL RESOURCES

Website: <https://www.datastax.com/products/datstax-enterprise-graph>

DataStax Academy: <https://academy.datastax.com/>

White paper "Why Graph?": <https://www.datastax.com/why-graph-database>