Neo4j Graph Database
The Fastest Path to Graph Productivity

As the most trusted, scalable, graph data platform on the market, Neo4j empowers developers and data scientists to create intelligence-powered solutions. Now you can overcome the most complex data challenges with advanced applications that harness the rich relationships in your data.

The Neo4j Graph Database is the heart of the Neo4j Graph Data Platform. Neo4j is the most widely deployed graph database, serving enterprise use cases across industries, including life sciences, utilities, financial services, cybersecurity, and so many more.

"One of the most surprising things I’ve seen with Neo4j is the speed at which we’re able to innovate and deliver features to our customers. Since graph databases are inherently schemaless, the graph model allows us to add new data types and new paradigms and just attach them to an existing profile or device or person. That was surprisingly powerful – more powerful than I ever thought it would be."

Mark Hashimoto
Senior Director
Comcast

Key Benefits of Neo4j Graph Database

Graph-Native Scale
Graph Neo4j’s high-performance, ACID-compliant distributed cluster architecture scales with your data and your business needs, minimizing cost and hardware while maximizing performance across connected datasets without compromising data integrity.

Neo4j offers robust transactional guarantees across billions of nodes and trillions of relationships, with query responses in milliseconds. Analytical workloads achieve unlimited scale-out for reads with a single core server and read replicas. Scale reads horizontally 1000x by adding read replicas.

The Neo4j Graph Database gives you unlimited horizontal scalability. Shards partition data onto different servers as desired based on business needs, geography, or latency for users. Federated native graph queries analyze the graph as a logical whole using Neo4j Fabric.

Superior Performance
Graph databases are like rocket fuel for applications, delivering context fast, even for the deepest queries. Neo4j’s native graph database delivers constant high-performance queries, no matter how large your graph is.

Adding indexes on relationships and relationship properties triples the speed of deep queries. Relationship chain locks enable faster transaction writes to create, delete, and update dense nodes (nodes with many relationships).

High Adaptability
Business requirements and priorities change – and Neo4j helps you keep pace. Neo4j pioneered the property graph model; the model you sketch on a whiteboard is the same as the data stored in the database. This intuitive approach spurs rapid application development and evolution. As business requirements change, modify the schema or database without disruption.

Designed for the Cloud
Neo4j runs everywhere: on-premises and across public, private, and hybrid clouds. About 90 percent of enterprise customers deploy Neo4j in the cloud. Neo4j is designed for ease of operations in cloud architecture so you can build, test, and deploy faster.

Neo4j AuraDB, the fully managed cloud offering, enables developers to get started immediately, with zero administration. Neo4j AuraDB scales to meet the most
Neo4j makes application development, deployment, and DevOps even simpler with its cloud-native API (HTTP/2), Kubernetes integration, and Helm Charts, as well as simplified server-side routing.

**Effortless Management**
Adopting Neo4j in your organization should be game changing, not an additional burden for your ops team. Neo4j Ops Manager offers an intuitive GUI that provides instant monitoring of all Neo4j instances from a single pane of glass. Operators gain a bird’s-eye view of databases, clusters, and instances, and health metrics for databases, operating systems, and host resources and can set up role-based access control with ease. Neo4j Ops Manager simplifies the work of database admins, giving them greater control with a minimal learning curve.

**Developer Productivity**
Neo4j has the largest active developer community, with over 240,000 members. The Cypher graph query language is compact and intuitive, requiring 10x less code than SQL. Cypher delivers enormous productivity gains with a minimal learning curve.

A combination of client- and server-side routing makes it easy for DevOps teams to roll out Neo4j with load balancers, orchestration platforms like Kubernetes, application stacks like GRANDstack, and client tools like Neo4j Bloom, Neo4j Browser, and Jupyter Notebooks.