Graphs are everywhere. All manner of organizations are adopting graph databases as the best way to model and query connected data. A graph database is a database that uses graph structures with nodes, relationships, and properties to represent and store data and is based on graph theory.

Graph databases, unlike their NoSQL and relational brethren, are designed for lightning fast access to complex data found in recommendation engines, social networks and networked systems. Graphs inherently are a very intuitive way to represent relationships between data. Graph databases differ in that the data is the structure. This provides a level of flexibility and resilience that is a great match for today’s fast moving business and agile development method.

Main Features of Neo4j
Neo4j is the most mature and widely deployed graph database today with the largest ecosystem of partners and tens of thousands of successful deployments. Neo4j’s innovative approach—while being both reliable and fast—is ideally suited for managing and querying highly connected data with main features that include:

- Intuitive – data representation by a graph model
- Reliable – with full ACID (Atomicity, Consistency, Isolation, Durability) transactions
- Durable – using a custom disk-based, native storage engine
- Massively Scalable – linear read scaling through horizontal clustering
- Highly-Available – thanks to clustering
- Expressive – with a powerful, human readable graph query language, Cypher
- Fast – with a powerful traversal framework for high-speed graph queries (will run up to 1000 times faster than an RDBMS)
- Language Support – supports all popular programming languages
- Embeddable – with a few small jars
- Labeled Property Graph Model – the best combination of convenience and power for graph applications

Neo4j Key Benefits
High Performance Queries - A graph data model that can traverse complex graphs with improvements of 1000x or more compared to SQL and other NoSQL databases.

Rapid Development - The graph data model simplifies application development that results in shorter development times, lower maintenance costs and higher performance.

Real ACID Transactions - Mature support for transactions so that enterprise developers can execute “all or nothing” transactions.

Language Support - Accessible from all popular programming languages via an HTTP/S and REST interface, a native Java API, and a variety of drivers, including Spring.

Use Cases - Neo4j is applicable across a wide range of uses ranging from cloud and data center management, social platforms, content management, fraud detection, resource authorization and other mission-critical apps.

Neo4j is available as an open source Community edition, with a certified Enterprise edition available under a commercial subscription license, support by Neo Technology, with services by IAI.

Allow Information Analysis Incorporated (IAI), a Neo4j Solutions Partner and Reseller, to assist you in developing a cost effective, creative and reliable solution for your complex “Big Data” needs.

Neo4j is now available on IAI’s GSA IT Schedule 70 contract GS-35F-0062J.