Introduction to Neo4j

What's neo4j?

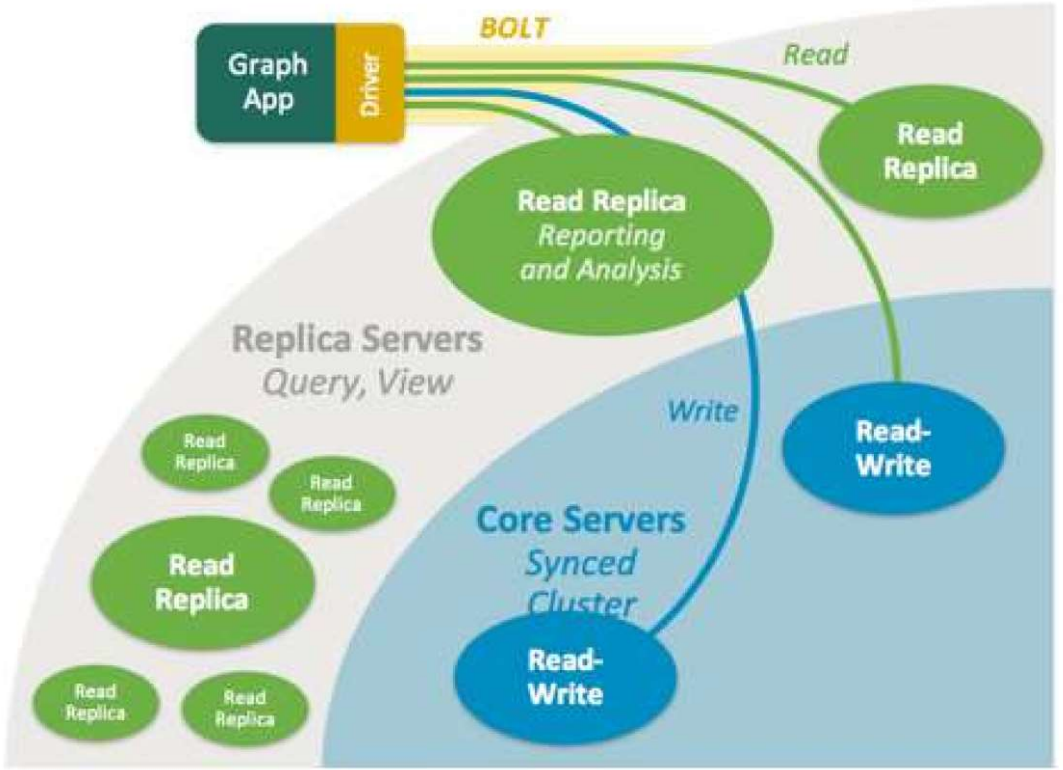
- Provides a graph database management system
  - A language to query the database, a.k.a CYPHER
  - A visual interface with the neo4j browser.
- Open source project, maintained by a private company
- Inspired by the structure of the human mind

Neo4j Graph Platform

- The heart of the Neo4j Graph Platform

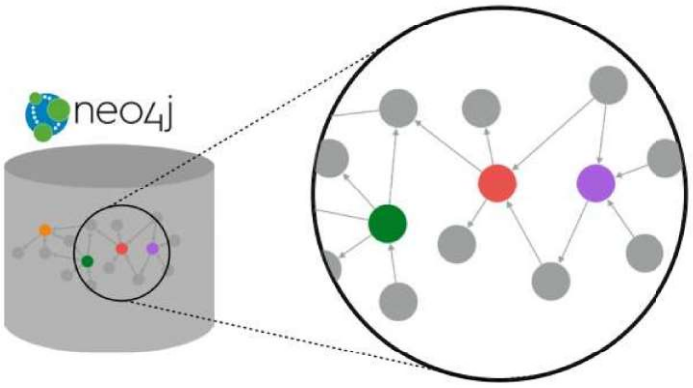
Clusters

- Supports clusters that provide
  - High availability,
  - Scalability
  - Failover



Graph engine

- To interpret Cypher statements
- Many ways to tune performance of engine to suit particular application needs



Language and driver support

- The language used for querying the Neo4j database is Cypher
- Supports Java, JavaScript, Python, C#, and Go drivers out
  - Use bolt protocol for access to the database layer
- Can develop own server-side extensions to access data without using Cypher
- The Neo4j community developed drivers for many languages - Ruby, PHP, and R
- Can extend functionality of Neo4j by creating
  - User defined functions and
  - Procedures

Libraries

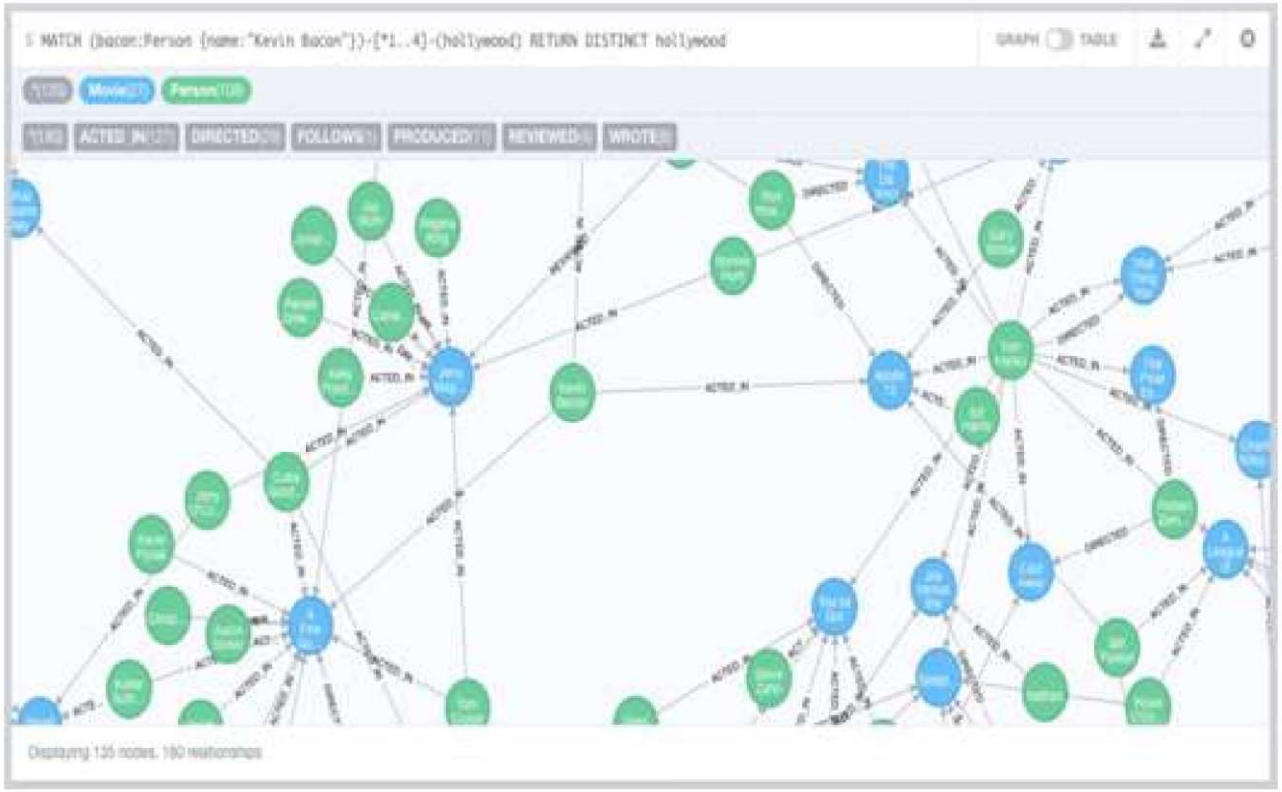
Finds the optimal path or evaluates route availability and quality

Determines the importance of distinct nodes in the network

Evaluates how a graph is clustered or partitioned

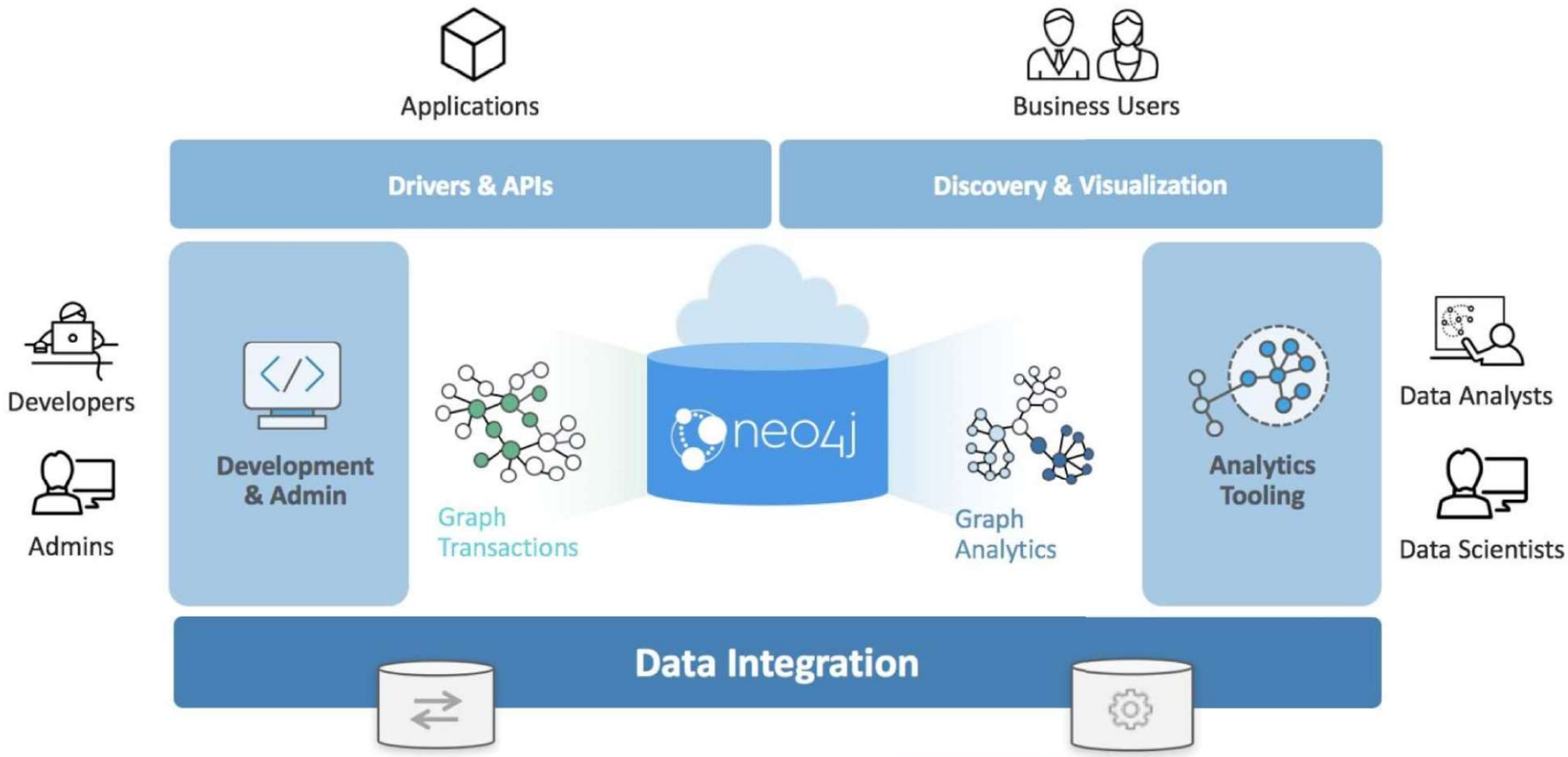
- APOC
- Graph Algorithms
- GraphQL library

Tools



- Neo4j Browser
  - Uses the Bolt driver to access the graph engine of the Neo4j database server
- Bloom
  - Enables to visualize a graph
- For importing and exporting data

Neo4j Graph Platform architecture



Cognixia®
THANK YOU