Neo4j Spatial

Backing a GIS with a real graph database

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NoSQL

Not Only SQL

Key-Value

BigTable

Document

Graph DB
NOSQL data models

- Key-value stores
- Bigtable clones
- Document databases
- Graph databases
Nodes have different properties

- Matrix characters: People vs. Programs

Build structure as you go

- Who loves Neo?
Neo4j Spatial

- Core
  - Storage
  - Search
  - Operations
  - I/O

- Extensions
  - Geotools & GeoServer
  - uDig
  - OpenStreetMap
Topology

Connectedness
Connecting and Splitting

Why have layers at all?

- Simpler renderers
- Historical
- Data sources
Connecting and Splitting

- Routing

- OSM Dynamic Layers
GSoC 2010

- Davide Savazzi
- Geotools & GeoServer
- Routing
- uDig
GSoC 2010 - Routing
Dynamic Layers
Dynamic Layers
Future

- Editing
  - Fine Grained Geotools Feature Editing
  - OSM Editor

- OSM
  - Caching sub-graphs (desktop & mobile)
  - More Dynamic Layers & Shapefile export

- Topology
  - Persist all topological results in graph

- Benchmarking & Performance
  - Improved indexing
  - Composite index
API References

- Wiki, Code, API references
  - http://wiki.neo4j.org/content/Neo4j_Spatial
  - http://github.com/neo4j/neo4j-spatial
  - http://components.neo4j.org/neo4j-spatial
  - Mailing list: neo4j@lists.neo4j.org
  - http://neo4j.org/community/list/