



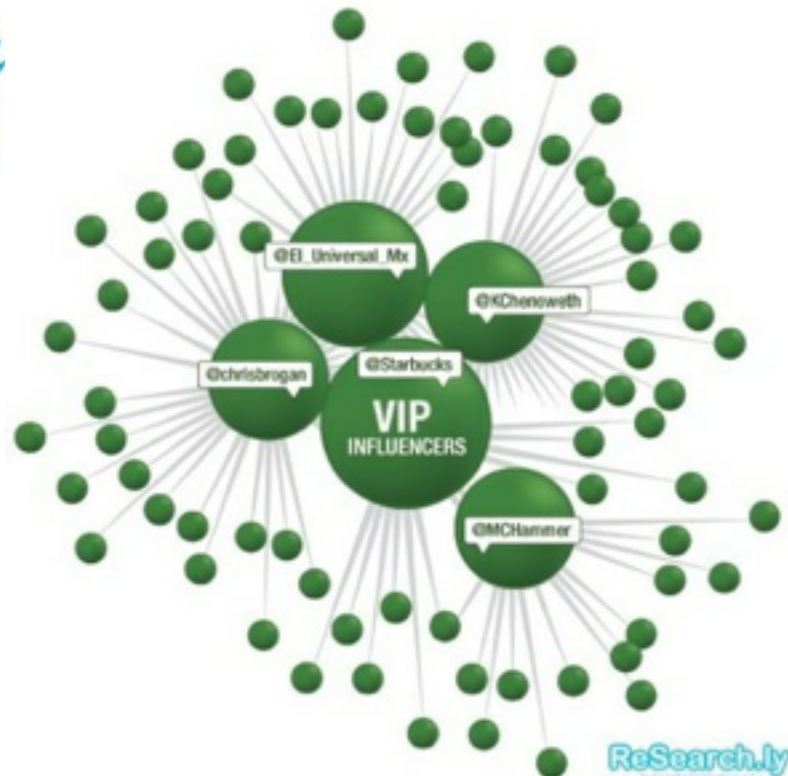
David Montag
Neo Technology



Early Adopters of Graph Technology



facebook



Google™

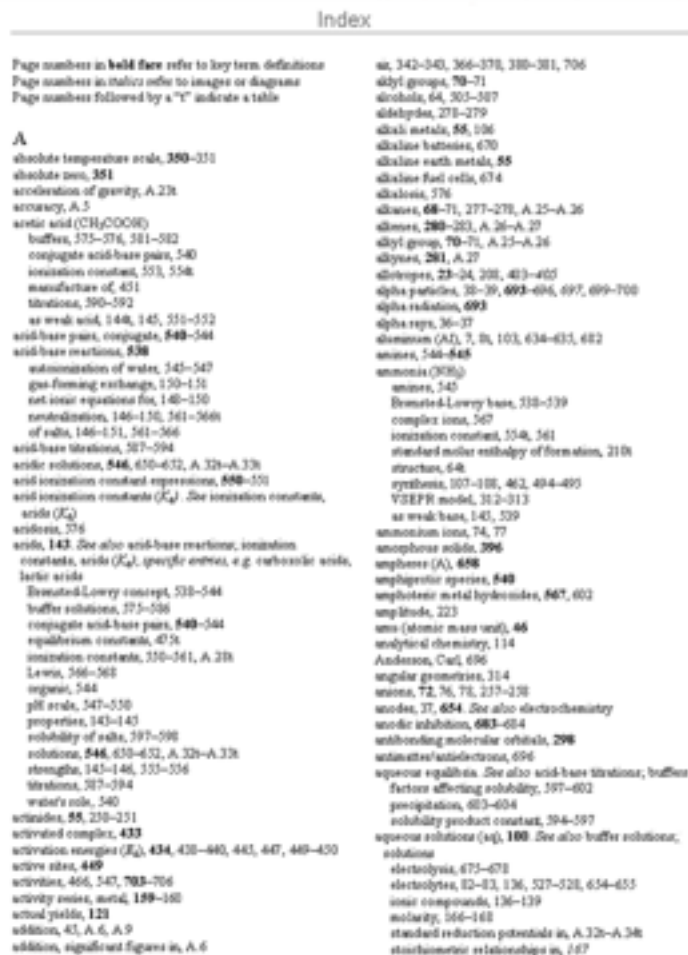


Survival of the Fittest

Evolution of Web Search

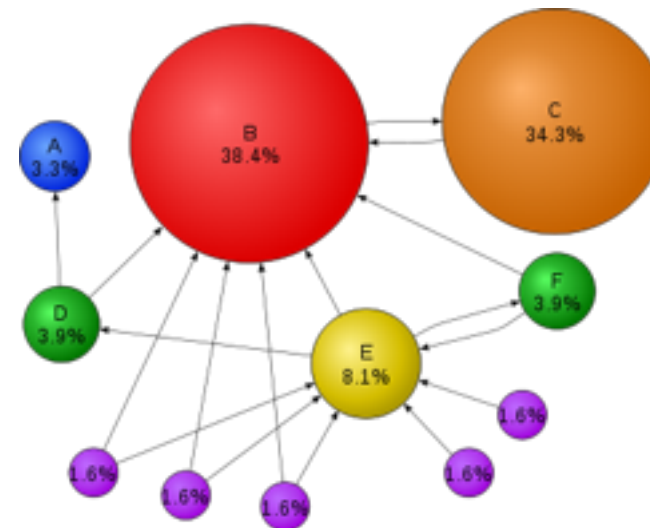
Pre-1999

WWW Indexing



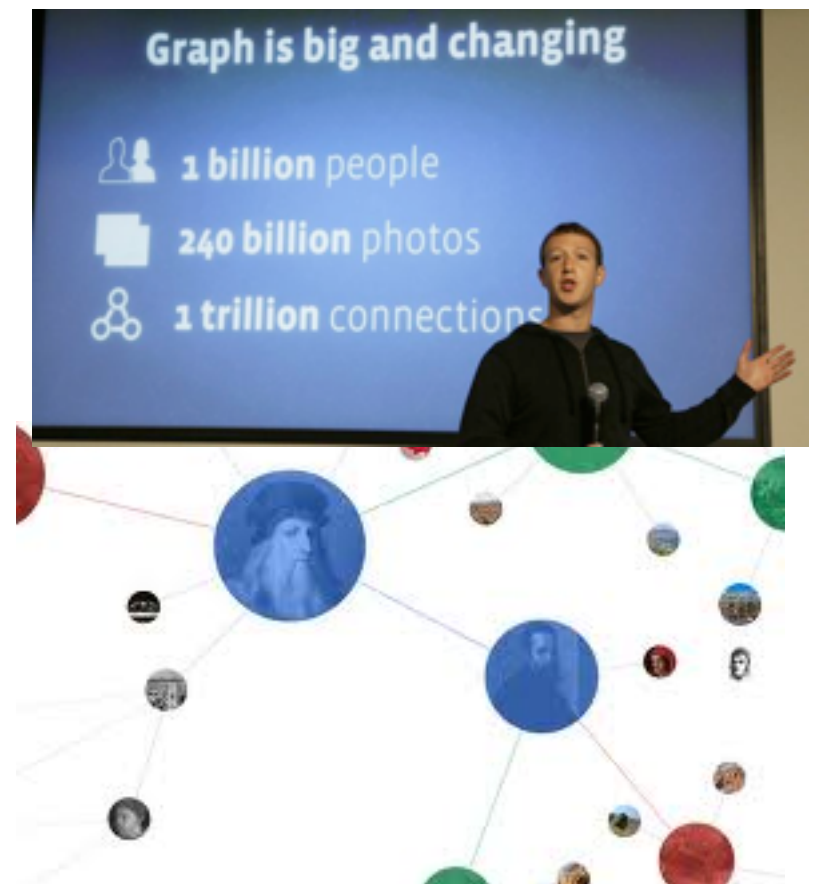
1999 - 2012

Google Invents
PageRank



2012-?

Google Knowledge Graph,
Facebook Graph Search



Discrete Data +

Connected Data
(Simple)



Connected Data
(Rich)

Survival of the Fittest

Evolution of Online Recruiting



1999

Keyword Search

[Home](#) > **Job Search**

Search over **150,000** U.S. jobs.
Perform your search below or get [tips on searching](#).

Location Search:

----- Select a location -----
Alaska-Anchorage
Alaska-Fairbanks
Alaska-Juneau
Alaska-Valdez
Alabama-Anniston

Category Search:

----- Select a category -----
Accounting/Finance/Banking
Administrative/Clerical
Creative Arts/Media
Education/Training
Engineering/Architecture/Design

Keyword Search:

Search Jobs

Clear

Discrete Data



2011-12

Social Discovery



Most jobs are found through an inside connection

Each friend that joins Glassdoor allows you to see more connections at more companies

9 friends on
glassdoor

3,905 inside
connections

3,882 companies

[Invite more friends](#) — ask them to share their connections

Jobs with Connections

Sr. Statistical Analyst, Product Innovation

Netflix — Los Gatos, CA

From: Job.com — 1 days ago

Creative Director

frog design — San Francisco, CA

From: Experteer — 8 days ago

Java Server Software Engineer

Electronic Arts — Redwood City, CA

From: Experteer — 3 days ago

EMERGENCY MEDICAL TECH

U. S. NAVY — Fremont, CA

From: Monster — 14 days ago

Want better jobs? [Tell us your current job title](#)

Connected Data

Early Adopter Segments

(What we expected to happen - view from several years ago)






























Core Industries & Use Cases:	Software	Financial Services	Telecomm- unications
Network & Data Center Management			
Master Data Management			
Social			
Geo			

Neo4j Adoption Snapshot

Select Commercial Customers*



Core Industries & Use Cases:	Software	Financial Services	Telecommunications
Network & Data Center Management	     		 
Master Data Management			 
Social	         		 
Geo			 <p>India's No.1 local search engine</p>

*Community Users Not Included

Neo4j Adoption Snapshot

Select Commercial Customers*



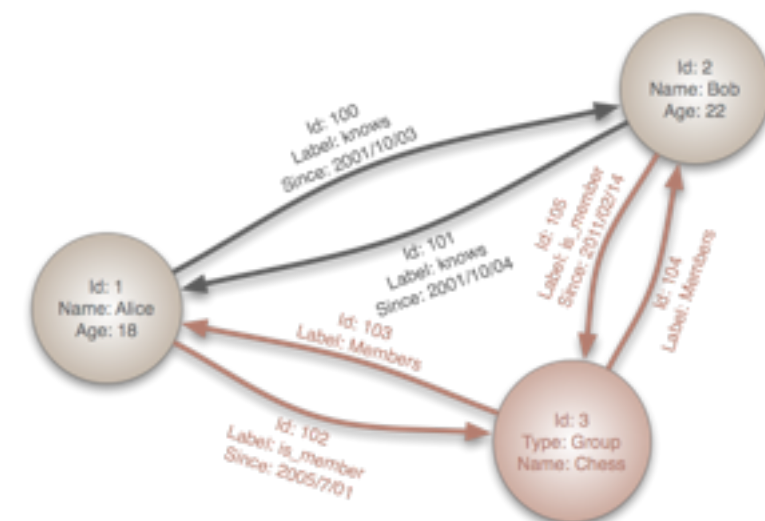
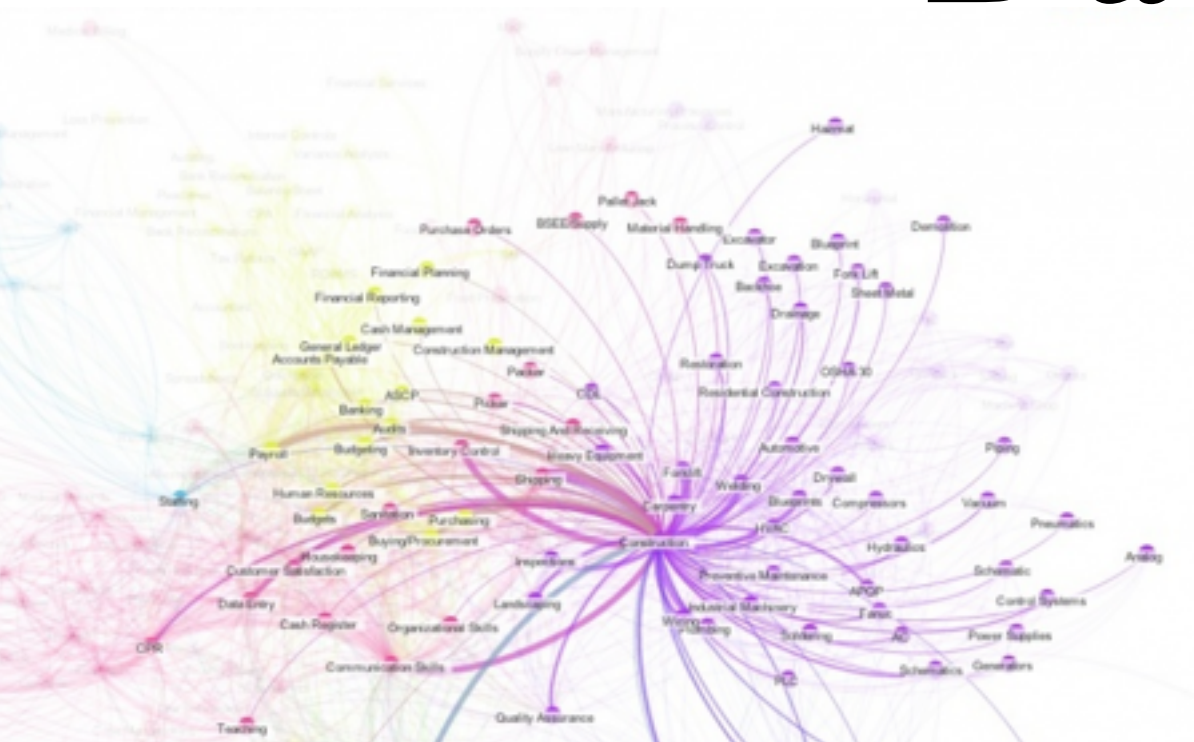
Core Industries & Use Cases:	Software	Financial Services	Telecommunications	Health Care & Life Sciences	Web Social, HR & Recruiting	Media & Publishing	Energy, Services, Automotive, Gov't, Logistics, Education, Gaming, Other
Network & Data Center Management	Zenoss, Juniper, NetApp, SERENA, gen, VIRTUAL INSTRUMENTS	Global 500 Finance	hp, SFR				
MDM / System of Record	die Bayerische		CISCO, 3	ZEPHYR HEALTH INC, HealthUnlocked	Wooz, EQUILAR	TechCrunch	Juice PLUS+
Social	viadeo, careerbuilder, glassdoor, eHarmony, Hinge, classmates.com, BANG WITH FRIENDS, SNAP, Ice, mallowstreet	Deutsche Telekom, maaii, Let's connect		SharePractice	SNAP, viadeo, glassdoor, meetic, eHarmony, CareerArc Group, classmates.com, BANG WITH FRIENDS	LIFECHURCH.TV, NATIONAL GEOGRAPHIC, SQUIDOO, india times	gone fine stay, teachscape
Geo	Dinglicom		Justdial, India's No.1 local search engine				LAUREATE INTERNATIONAL UNIVERSITIES, bwin.party, gamesys
Recommendations	AXON ACTIVE, Focusing on your decisions, kitedesk				Dshini, careerbuilder, InfoJobs, moviepilot	Perigee, CHIP, zeebox, LifeWay	TomTom, Global 500 Logistics, shutt, KiwiRail, ebay now, research now, compete
Identity & Access Mgmt	LIQUID, COMMON, aikux.com, entropy	Global 500 Finance	telenor	Curaspan, HEALTHGROUP		Walmart	McKinsey & Company, Global 500 IT
Content Management	springcm, Adobe			SevenBridges, genomics	SRM, SOCIETY FOR HUMAN RESOURCE MANAGEMENT	decibel, <fuseworks/>	Global 500 Aviation, DOSB NEW MEDIA GMBH, DEUTSCHER OLYMPISCHER SPORTBUND
BI, CRM, Impact Analysis, Fraud Detection, Resource Optimization, etc.	SODIFRANCE, CONSEIL TECHNOLOGIES & SERVICES IT, id MISSION, Humanvest.co	First Data, Global 500 Telcommunication, DRW TRADING GROUP, NexLP		Janssen, GoodStart Genetics	hinge, tb	DRAKER, Impact Technologies, LOCKHEED MARTIN	THALES, ConocoPhillips

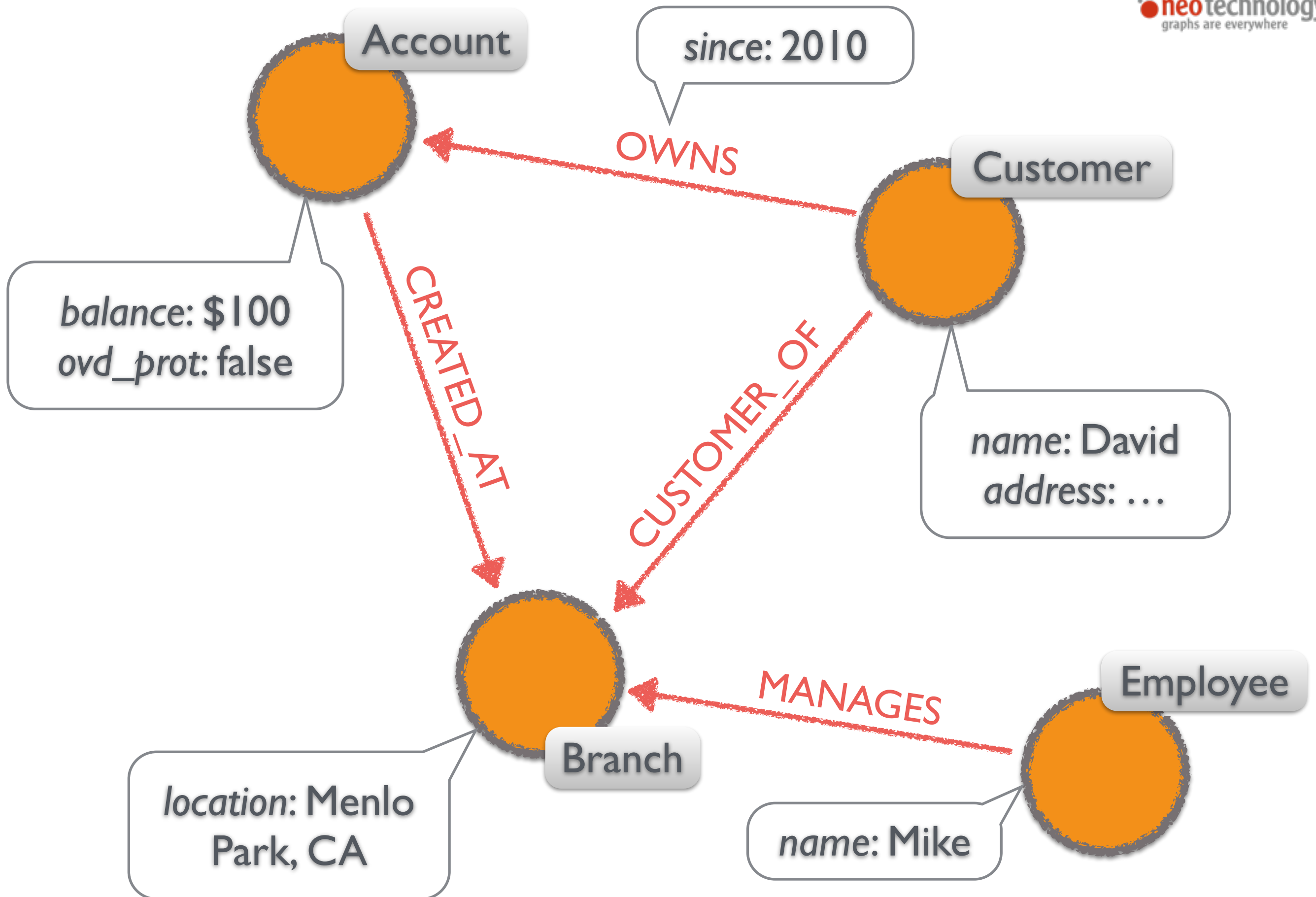
*Community Users Not Included

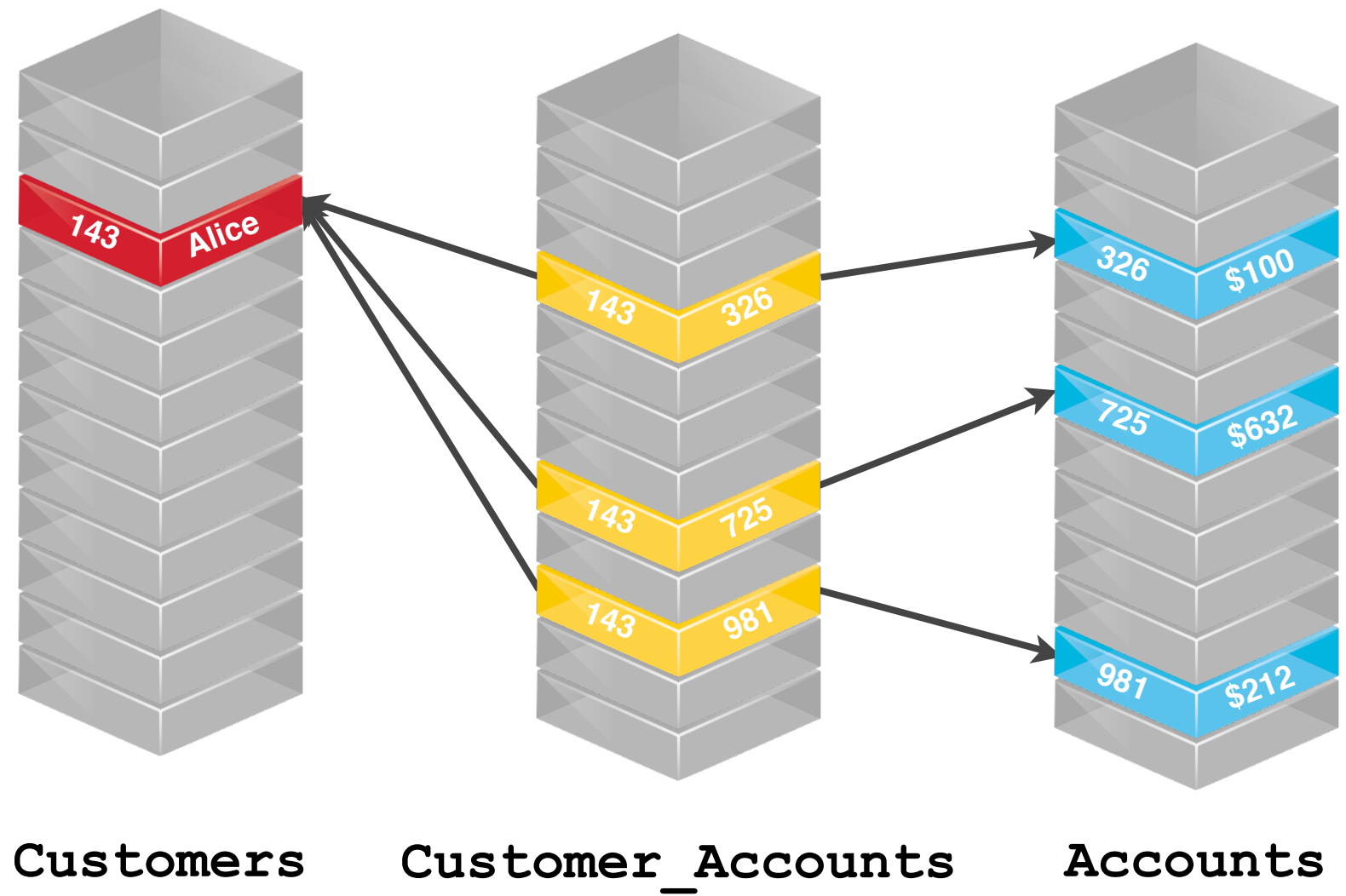
Neo Technology, Inc. Confidential

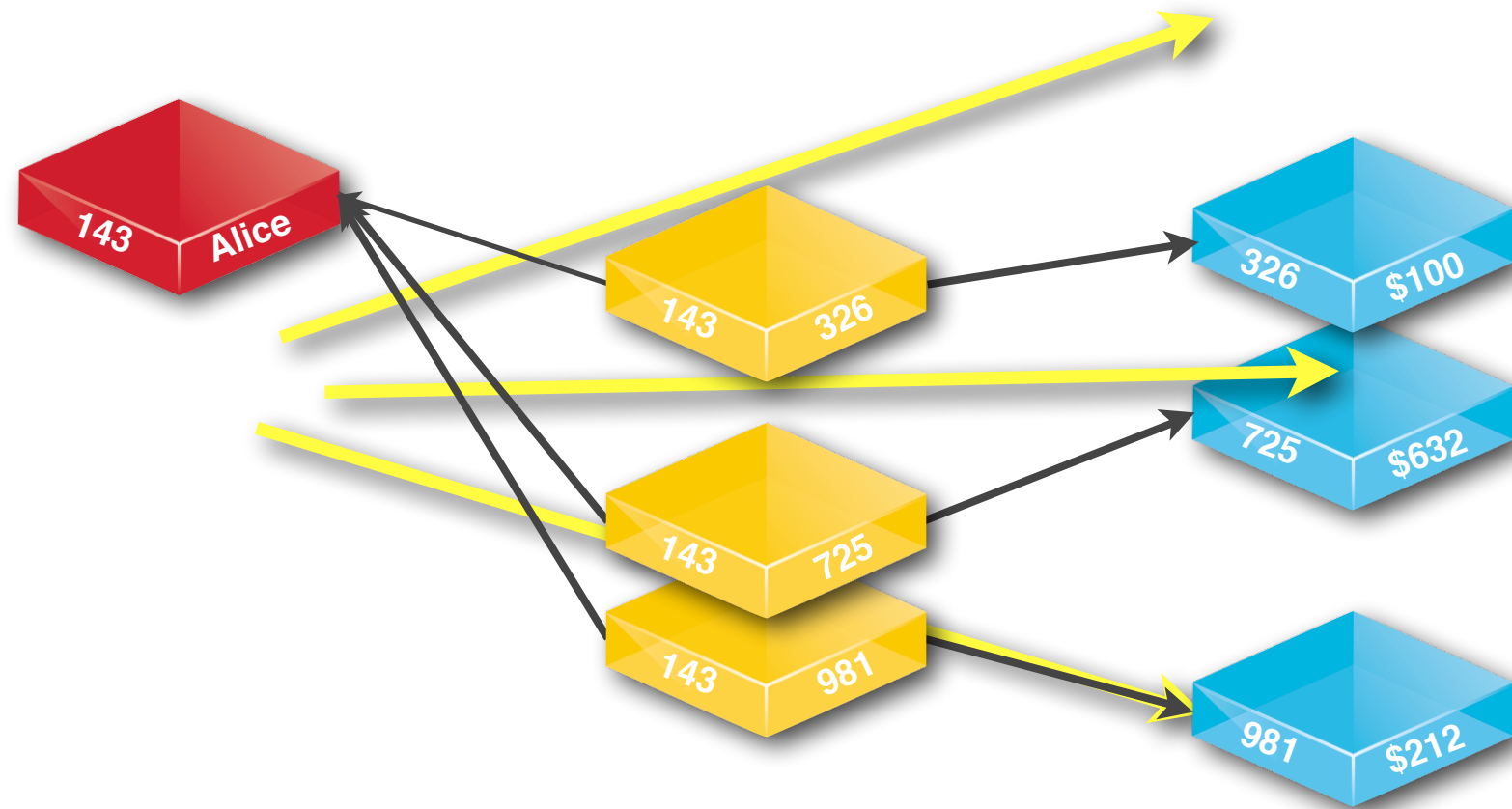


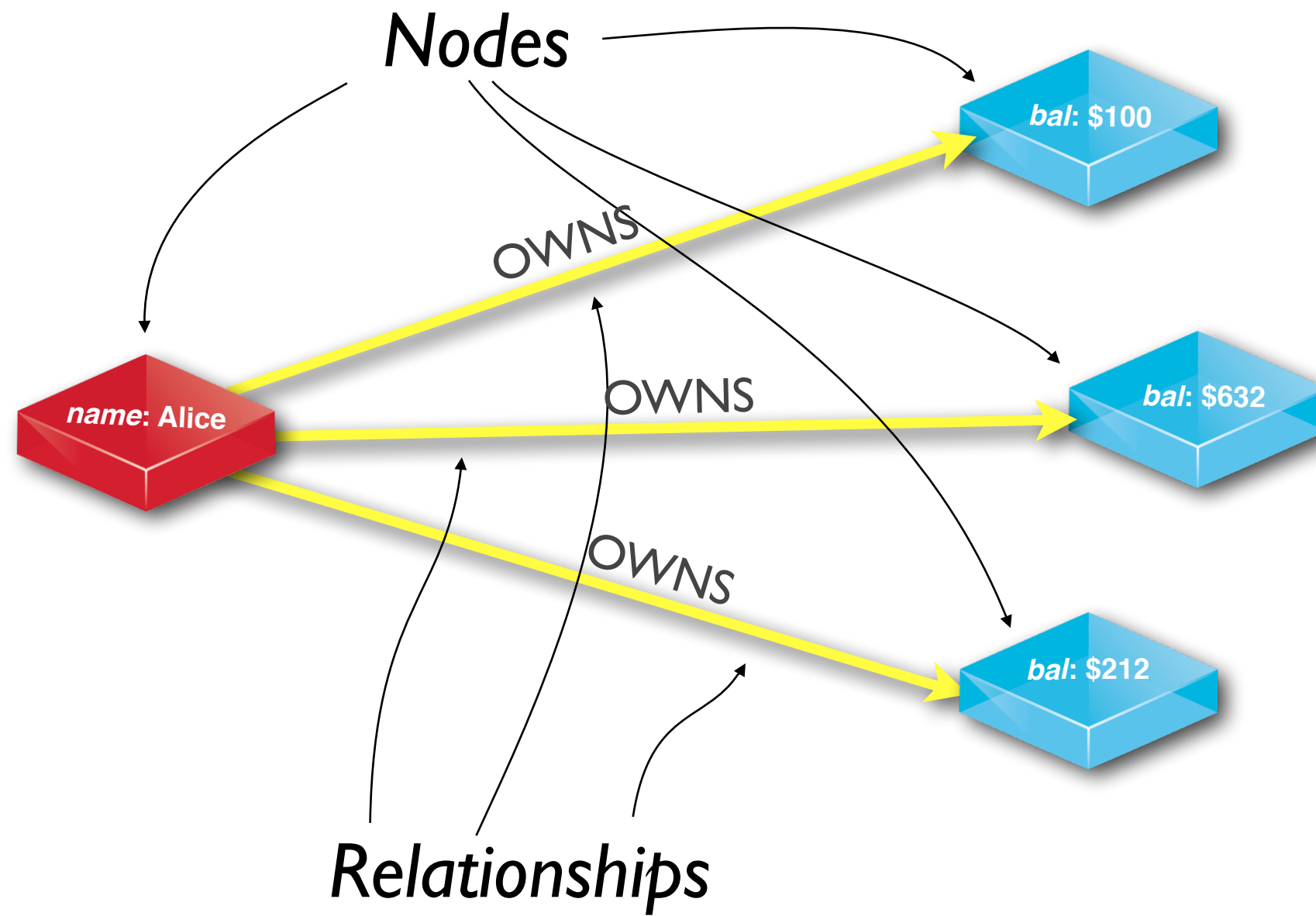
What's a Graph Database?







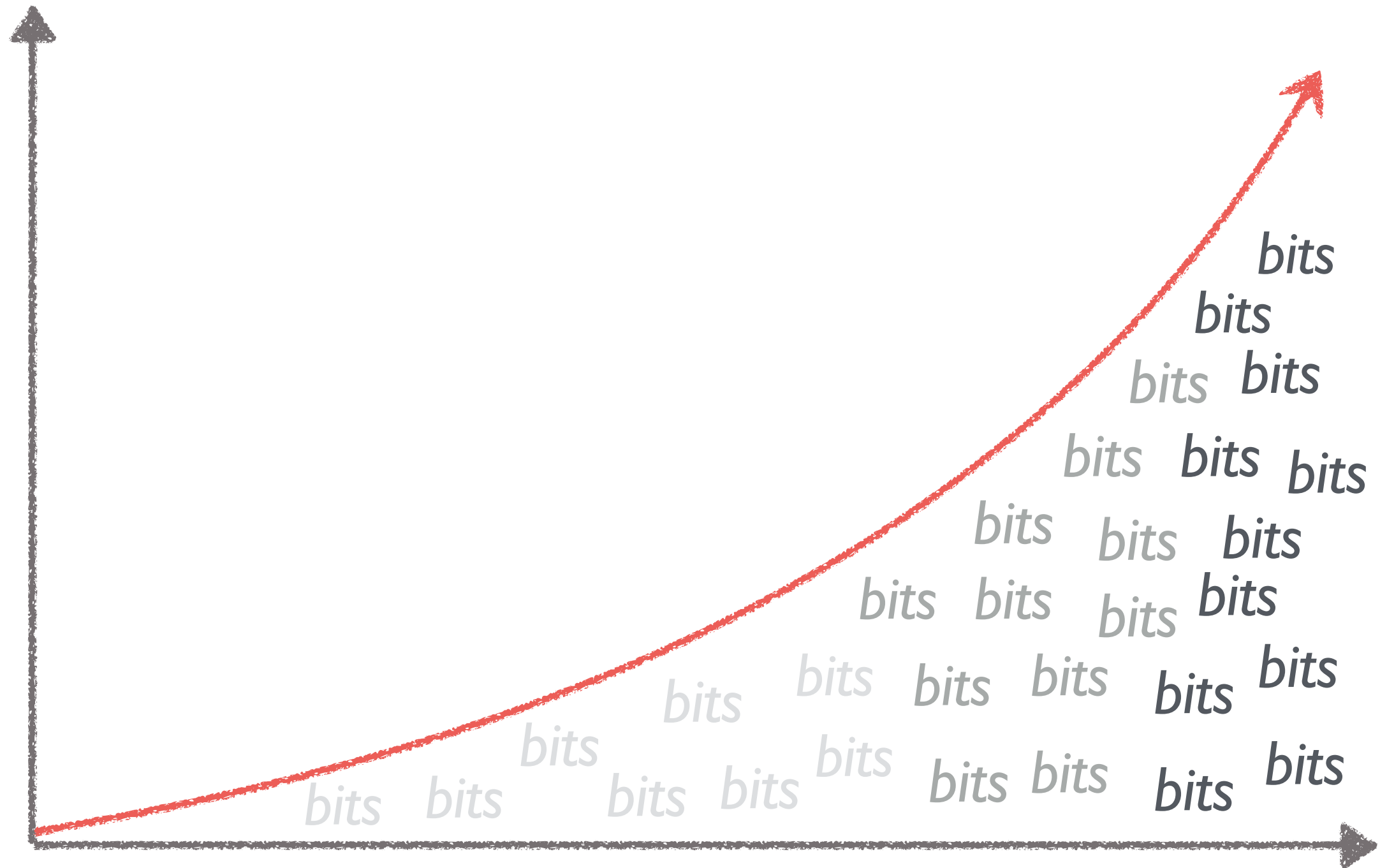


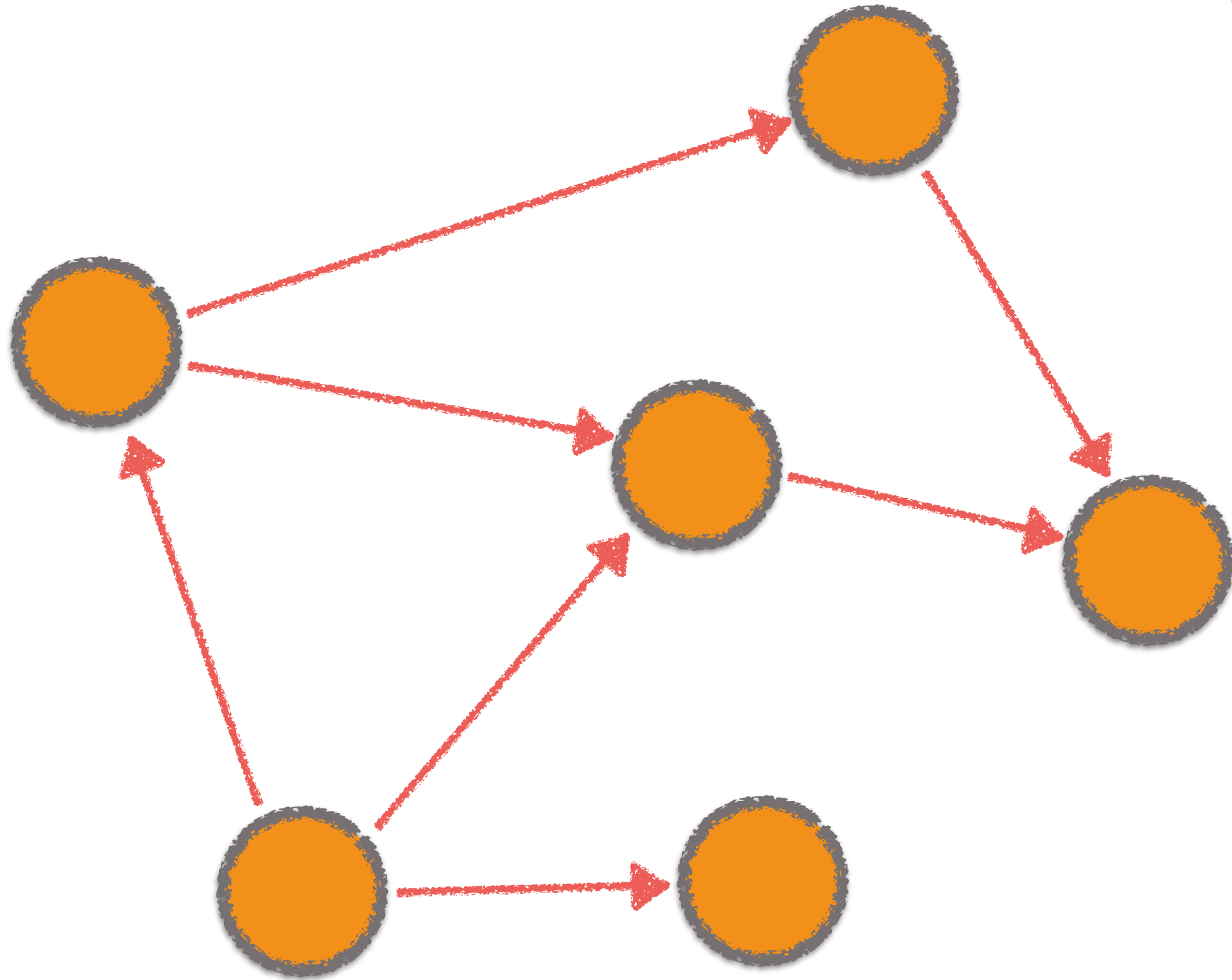


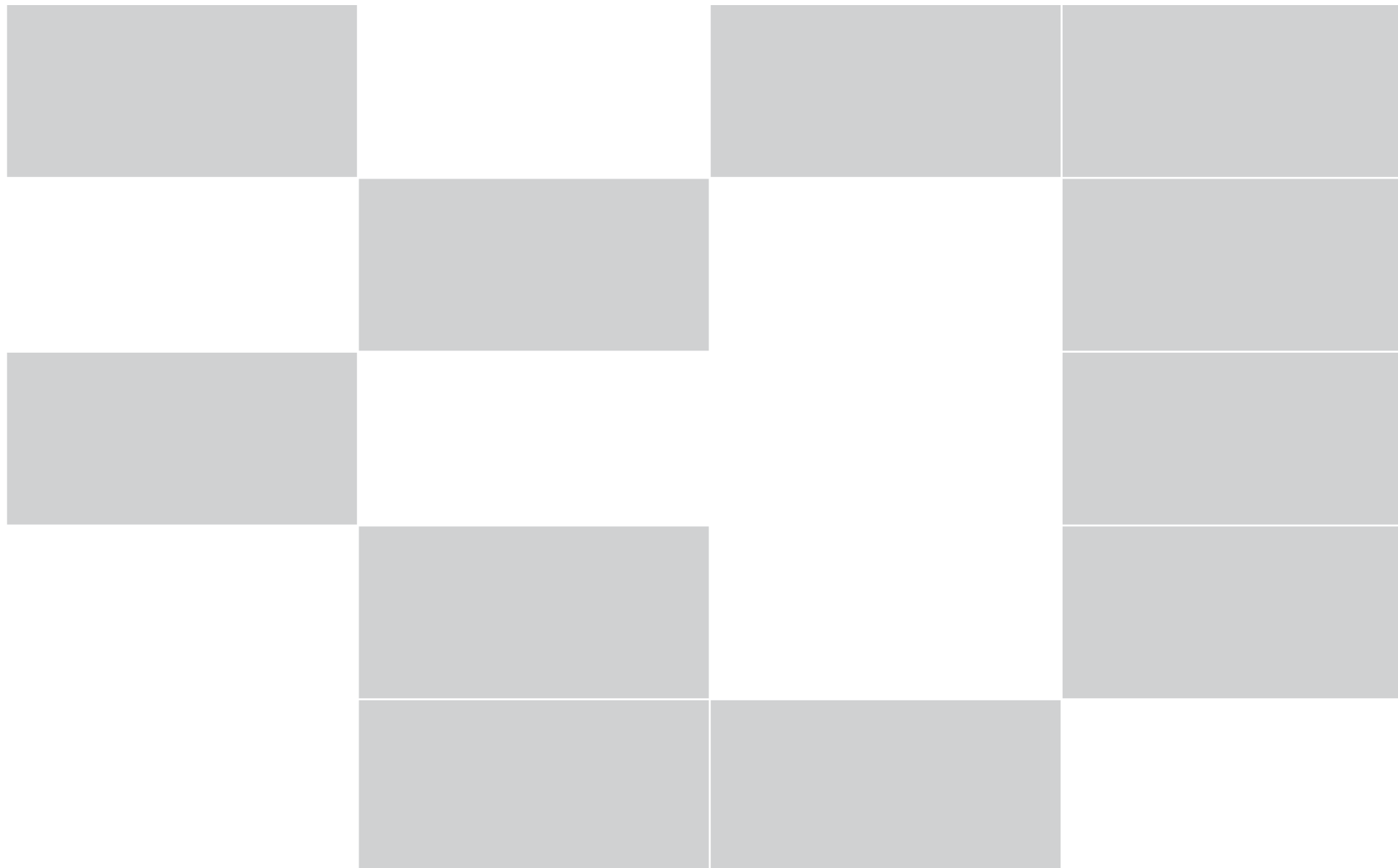
Quick Demo

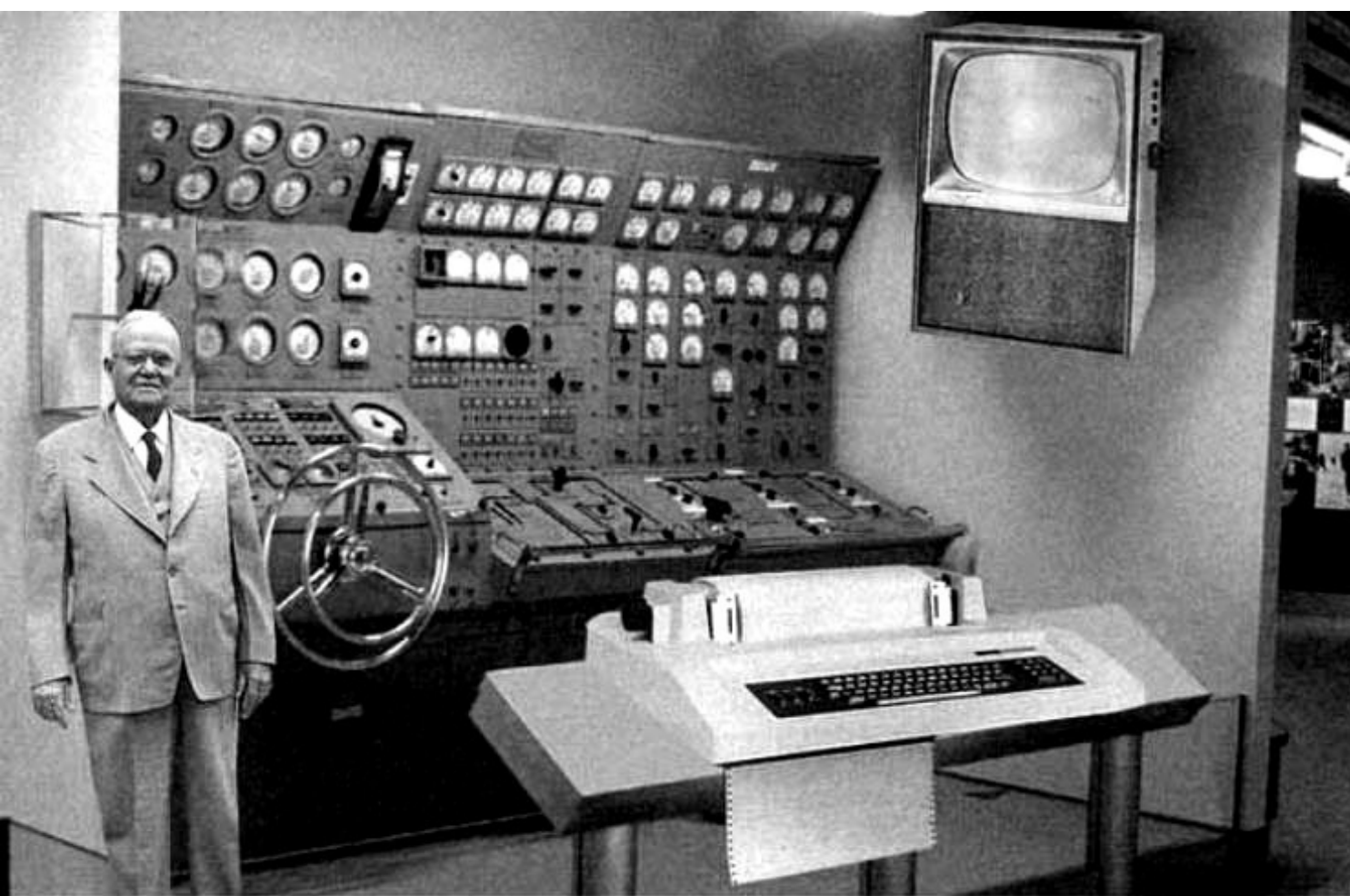
Graph history, benefits & differentiators

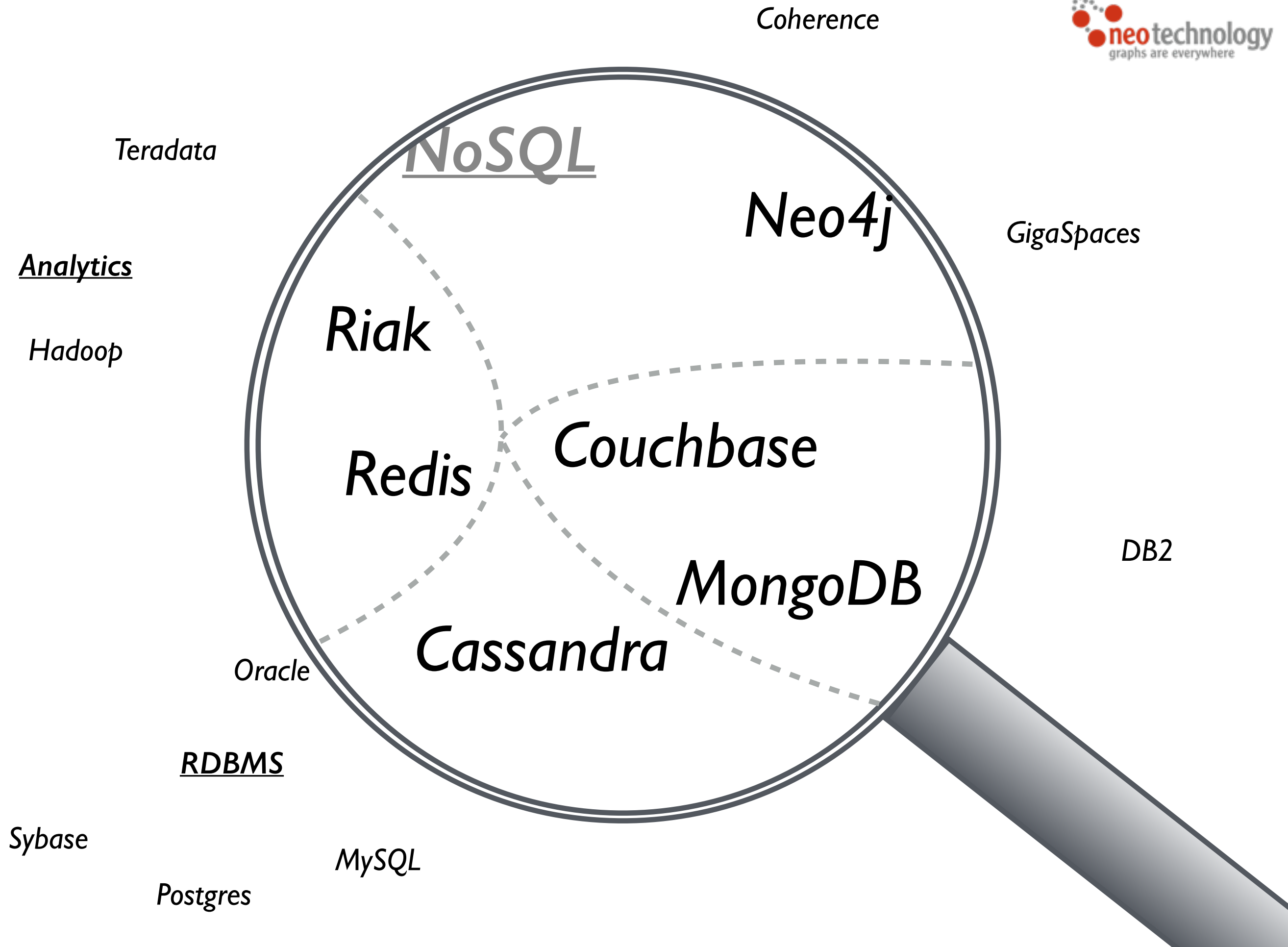
Not Only SQL

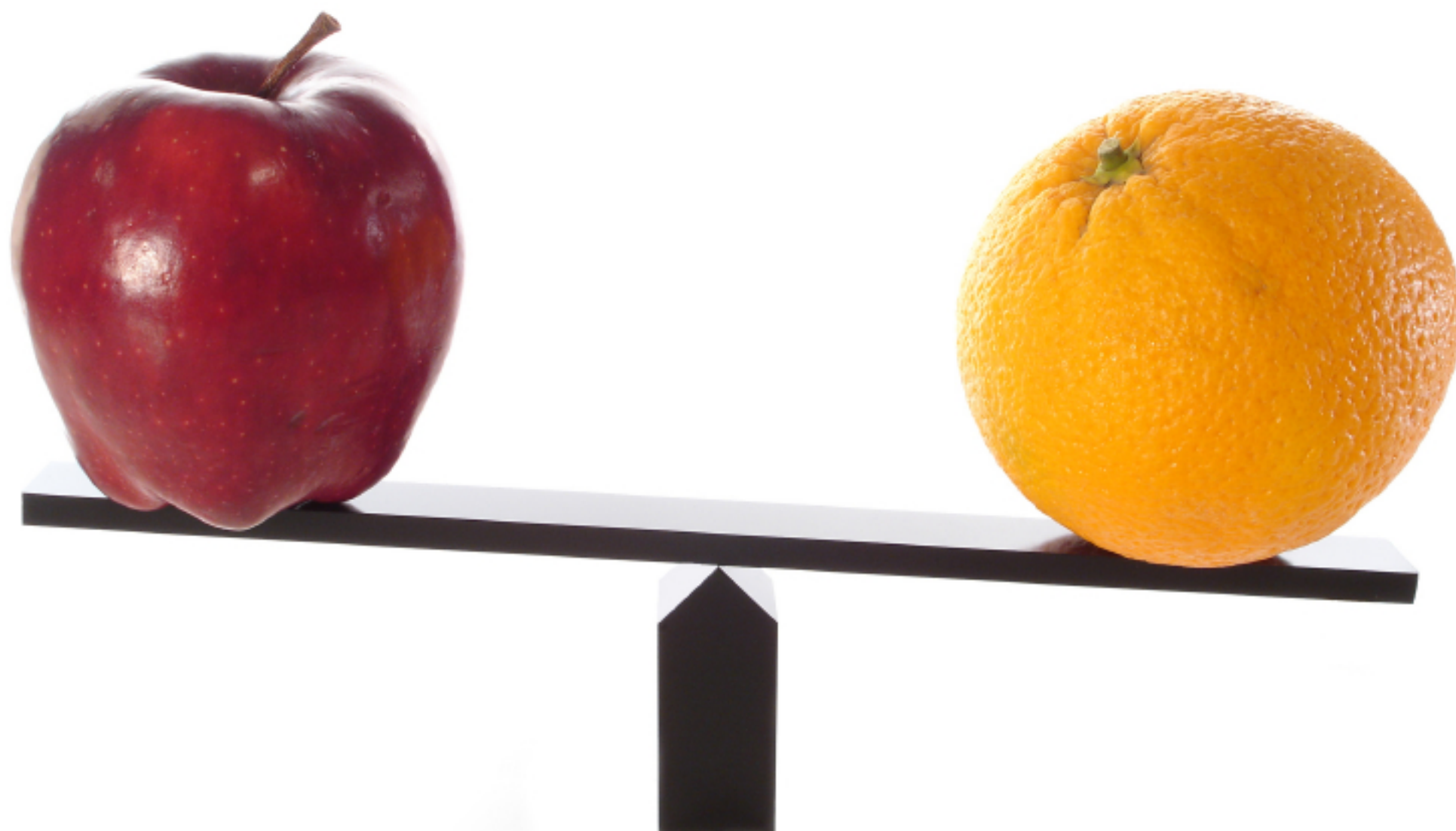












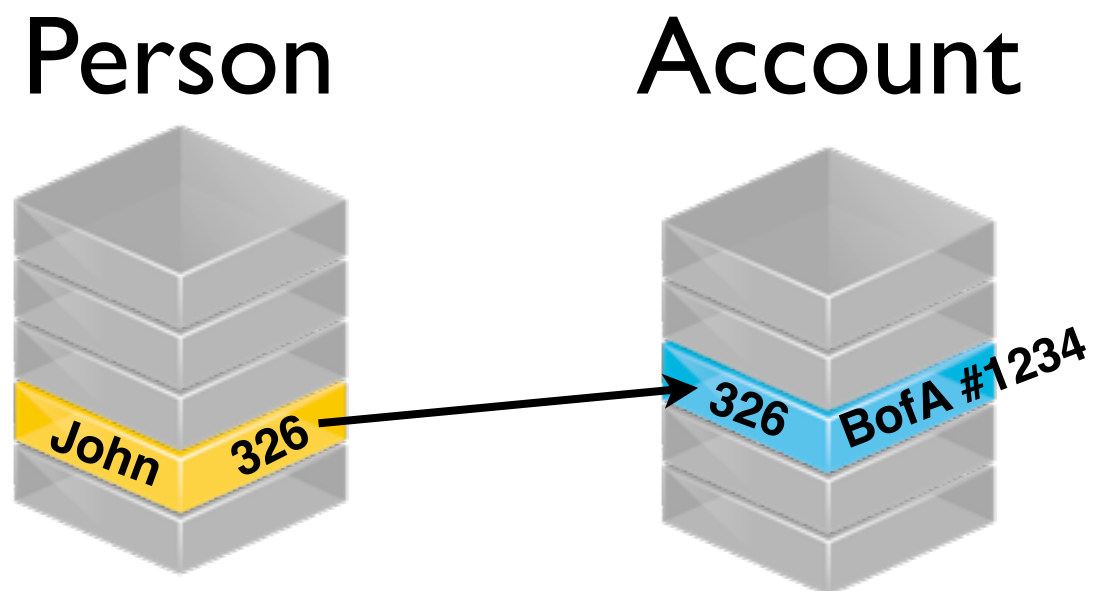
Built ground-up for graphs

*From the storage layer to the query language,
graphs are native to Neo4j.*

**Other NoSQL databases
don't do it at all**



**Relational databases
do it very poorly**

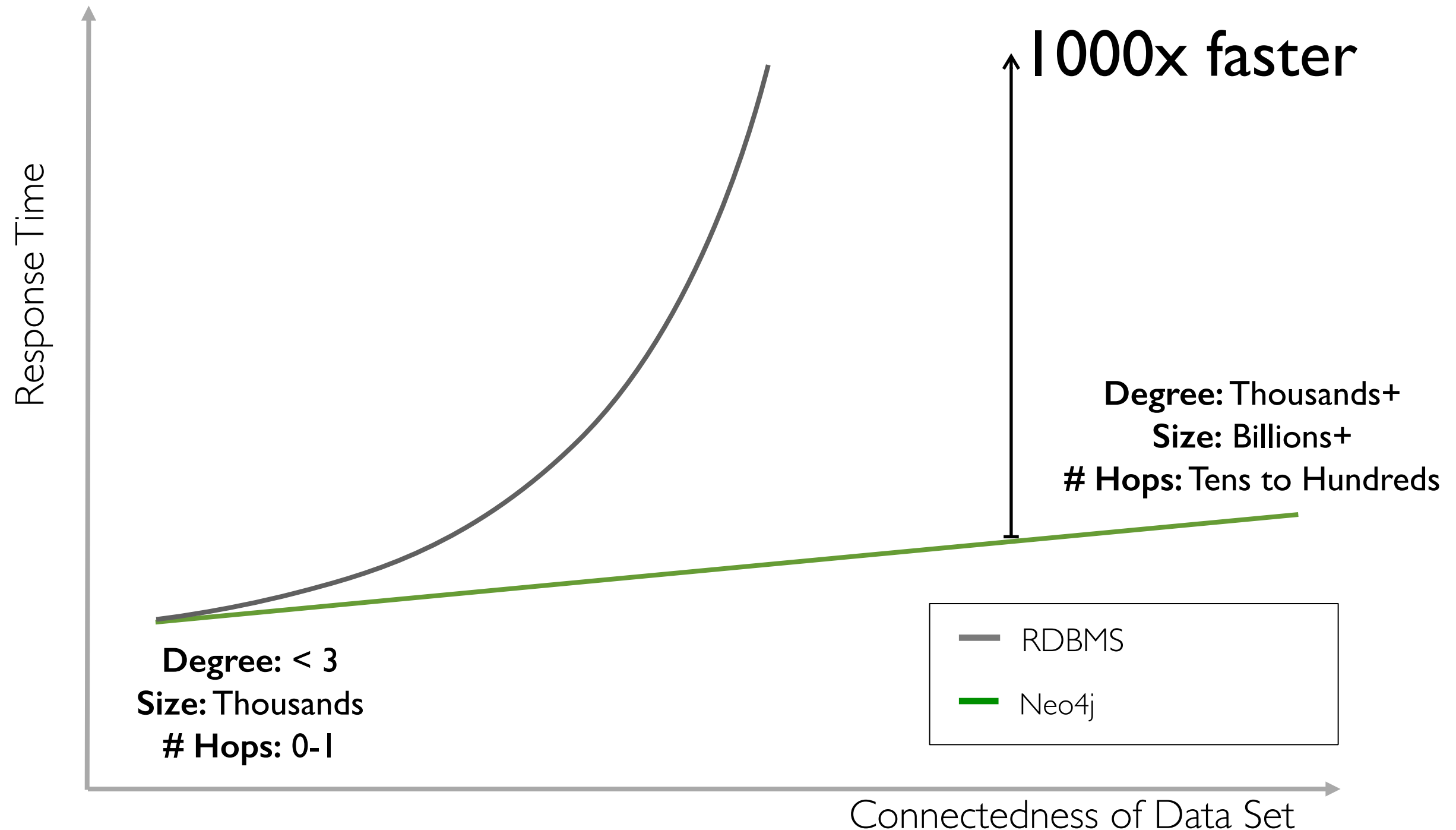


*Rigid schema & costly joining
of IDs required every lookup*

Connected Query Performance



RDBMS vs. Native Graph Database



Cypher vs SQL

```

MATCH (boss)-[:MANAGES*0..3]->(sub),
      (sub)-[:MANAGES*1..3]->(report)
WHERE boss.name = "John Doe"
RETURN sub.name AS Subordinate, count(report) AS Total
  
```

```

(SELECT T.directReportees AS directReportees, sum(T.count) AS count
FROM (
  SELECT manager.pid AS directReportees, 0 AS count
  FROM person_reportee manager
  WHERE manager.pid = (SELECT id FROM person WHERE name = "fName IName")
  UNION
  SELECT manager.pid AS directReportees, count(manager.directly_manages) AS count
  FROM person_reportee manager
  WHERE manager.pid = (SELECT id FROM person WHERE name = "fName IName")
  GROUP BY directReportees
  UNION
  SELECT manager.pid AS directReportees, count(reportee.directly_manages) AS count
  FROM person_reportee manager
  JOIN person_reportee reportee
  ON manager.directly_manages = reportee.pid
  WHERE manager.pid = (SELECT id FROM person WHERE name = "fName IName")
  GROUP BY directReportees
  UNION
  SELECT manager.pid AS directReportees, count(L2Reportees.directly_manages) AS count
  FROM person_reportee manager
  JOIN person_reportee L1Reportees
  ON manager.directly_manages = L1Reportees.pid
  JOIN person_reportee L2Reportees
  ON L1Reportees.directly_manages = L2Reportees.pid
  WHERE manager.pid = (SELECT id FROM person WHERE name = "fName IName")
  GROUP BY directReportees
) AS T
GROUP BY directReportees)
UNION
(SELECT T.directReportees AS directReportees, sum(T.count) AS count
FROM (
  SELECT manager.directly_manages AS directReportees, 0 AS count
  FROM person_reportee manager
  WHERE manager.pid = (SELECT id FROM person WHERE name = "fName IName")
  UNION
  SELECT reportee.pid AS directReportees, count(reportee.directly_manages) AS count
  FROM person_reportee manager
  JOIN person_reportee reportee
  ON manager.directly_manages = reportee.pid
  WHERE manager.pid = (SELECT id FROM person WHERE name = "fName IName")
  GROUP BY directReportees
  UNION
  SELECT reportee.pid AS directReportees, count(L2Reportees.directly_manages) AS count
  FROM person_reportee manager
  JOIN person_reportee L1Reportees
  ON manager.directly_manages = L1Reportees.pid
  JOIN person_reportee L2Reportees
  ON L1Reportees.directly_manages = L2Reportees.pid
  WHERE manager.pid = (SELECT id FROM person WHERE name = "fName IName")
  GROUP BY directReportees
) AS T
GROUP BY directReportees)
  
```

(continued from previous page...)

```

SELECT depth1Reportees.pid AS directReportees,
count(depth2Reportees.directly_manages) AS count
FROM person_reportee manager
JOIN person_reportee L1Reportees
ON manager.directly_manages = L1Reportees.pid
JOIN person_reportee L2Reportees
ON L1Reportees.directly_manages = L2Reportees.pid
WHERE manager.pid = (SELECT id FROM person WHERE name = "fName IName")
GROUP BY directReportees
) AS T
GROUP BY directReportees)
UNION
(SELECT T.directReportees AS directReportees, sum(T.count) AS count
FROM(
  SELECT reportee.directly_manages AS directReportees, 0 AS count
  FROM person_reportee manager
  JOIN person_reportee reportee
  ON manager.directly_manages = reportee.pid
  WHERE manager.pid = (SELECT id FROM person WHERE name = "fName IName")
  GROUP BY directReportees
  UNION
  SELECT L2Reportees.pid AS directReportees, count(L2Reportees.directly_manages) AS
count
  FROM person_reportee manager
  JOIN person_reportee L1Reportees
  ON manager.directly_manages = L1Reportees.pid
  JOIN person_reportee L2Reportees
  ON L1Reportees.directly_manages = L2Reportees.pid
  WHERE manager.pid = (SELECT id FROM person WHERE name = "fName IName")
  GROUP BY directReportees
) AS T
GROUP BY directReportees)
UNION
(SELECT L2Reportees.directly_manages AS directReportees, 0 AS count
FROM person_reportee manager
JOIN person_reportee L1Reportees
ON manager.directly_manages = L1Reportees.pid
JOIN person_reportee L2Reportees
ON L1Reportees.directly_manages = L2Reportees.pid
WHERE manager.pid = (SELECT id FROM person WHERE name = "fName IName")
  
```


“ “ Forrester estimates that over 25% of enterprises will be using graph databases by 2017 to support the next-generation applications that need connected data sets.

– *Forrester Research (TechRadar: Enterprise DBMS, Q1 2014)*

“ “ ... they are the solution that can deliver truly new insights from data.

– *Svetlana Sicular, Research Director, Gartner*

4 Case Studies

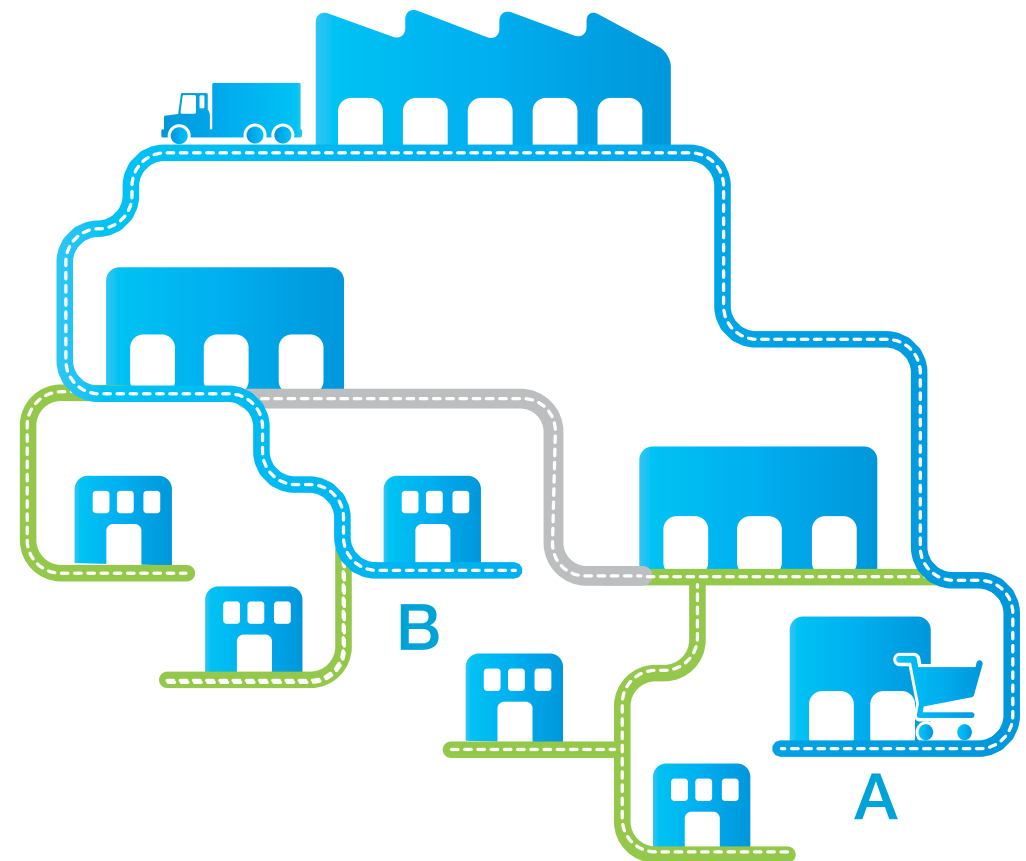


Real-time Logistics Routing

Challenge



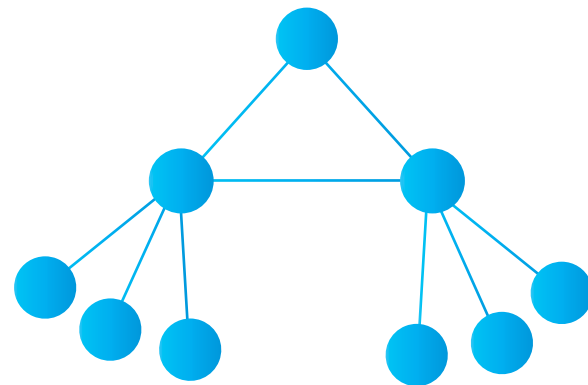
eCommerce Delivery
Changing Network Dynamics



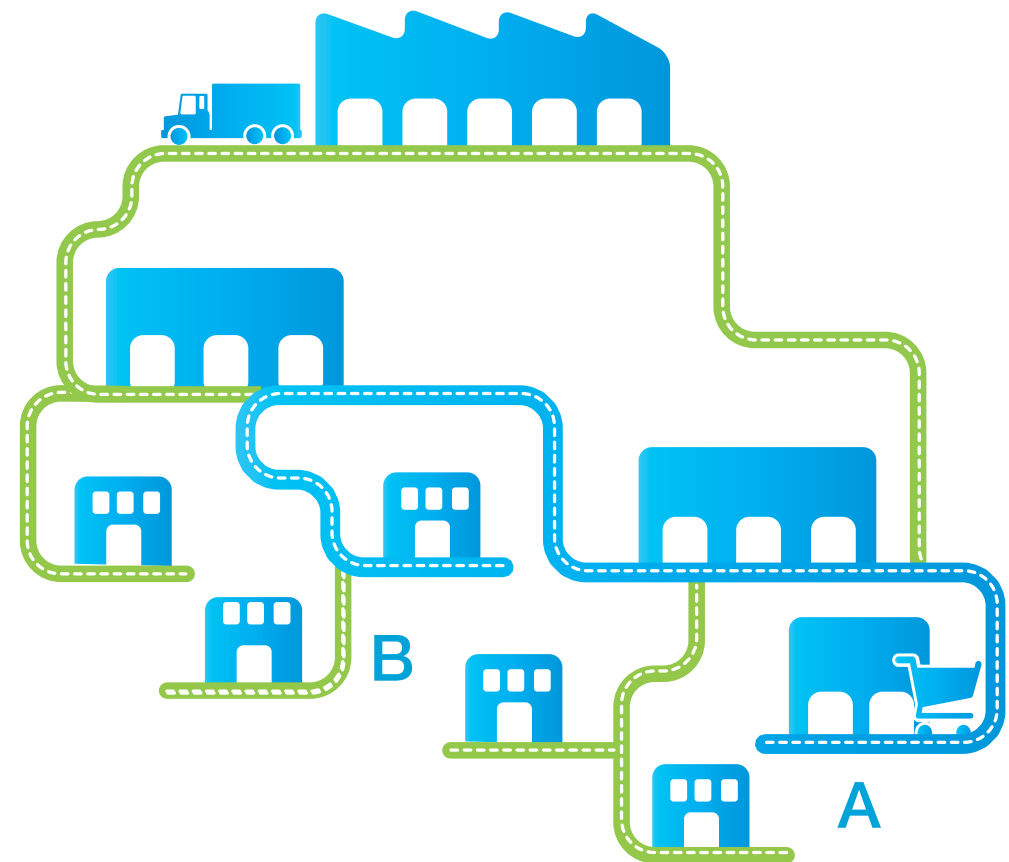
Hierarchical Routing System
Did Not Support Point-to-Point Deliveries

Real-time Logistics Routing

Solution

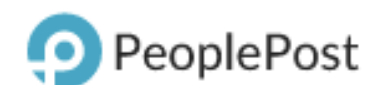


Model the Logistics
Network as a Graph



5M Packages Per Day. 3K Per Second.

Other examples



Content Management

Challenge

- Next-gen site required 360° deep view of any entity in the system
- RDBMS environment slow, difficult to manage and grow

Results

- Next-gen site deployed on Neo4j
- Statistics and drill-downs are easily created & customized

Hot on CrunchBase

Trending Now In The News

Facebook

Castlight Health

CrunchBase Stats

Companies	189,521
People	214,496
Financial Organizations	11,236
Service Providers	6,594
Funding Rounds	49,449
Acquisitions	9,249

TechCrunch CrunchBase More

CrunchBase

Search Advanced Search

Home > Companies > Neo Technology

neotechnology graphs are everywhere

edit

General Information edit

Website	neotechnology.com
Blog	blog.neo4j.org
Twitter	@neo4j
Category	Analytics/Big Data
Email	info@neotechnology.com
Employees	10
Founded	2007
Description	Graph Database

Offices edit

EU
Malmö, SWE

US
111 E 5th Ave
San Mateo, CA, 94401
USA

See nearby companies

Neo Technology

Graphs are everywhere. From websites adding social capabilities to Telco's providing personalized customer services to innovative bioinformatics research, organizations are adopting graph databases as the best way to model and query connected data. Neo Technology researchers have pioneered graph databases since 2000 and have been instrumental in bringing the power of the social graph to customers such as Adobe, Cisco, and Deutsche Telekom. Now in production for nine years, Neo4j is the world's leading graph database with the largest ecosystem of partners and tens of thousands of successful deployments worldwide.

Neo Technology is a privately held company funded by Fidelity Growth Partners Europe, Sunstone Capital and Conor Venture Partners, and is headquartered in San Mateo, CA, with offices in Germany, UK, France, Belgium, Sweden, and Malaysia. For more information, please visit www.neotechnology.com

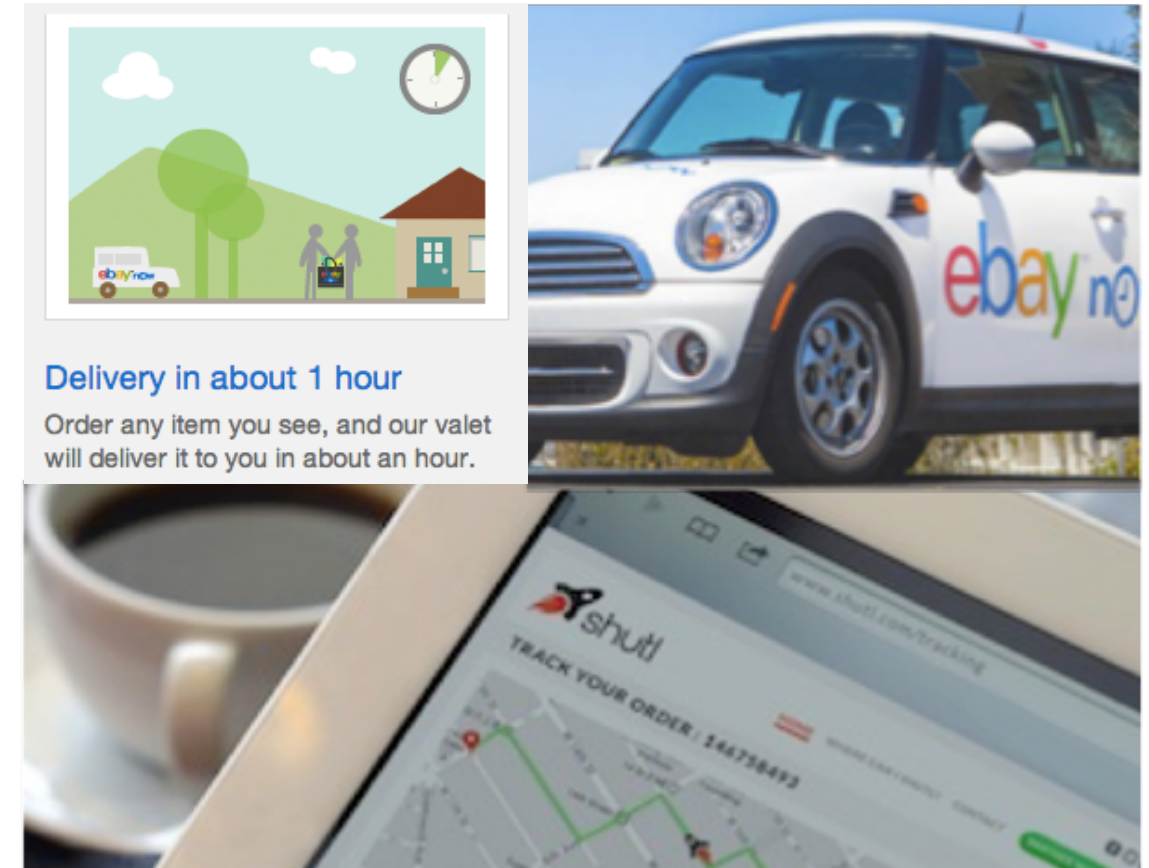
Recent Milestones edit

Neo Technology received \$11M in Series B funding. (11/2/12)
Posted 11/2/12 at 4:20am via techcrunch.com

Route Planning

Challenge

- Maintain large network of routes covering many carriers and couriers
- MySQL-based solution not fast enough for real-time use



Results

- 50x less code, 2000x faster calculations
- Complete ownership of data, and flexibility to modify algorithms



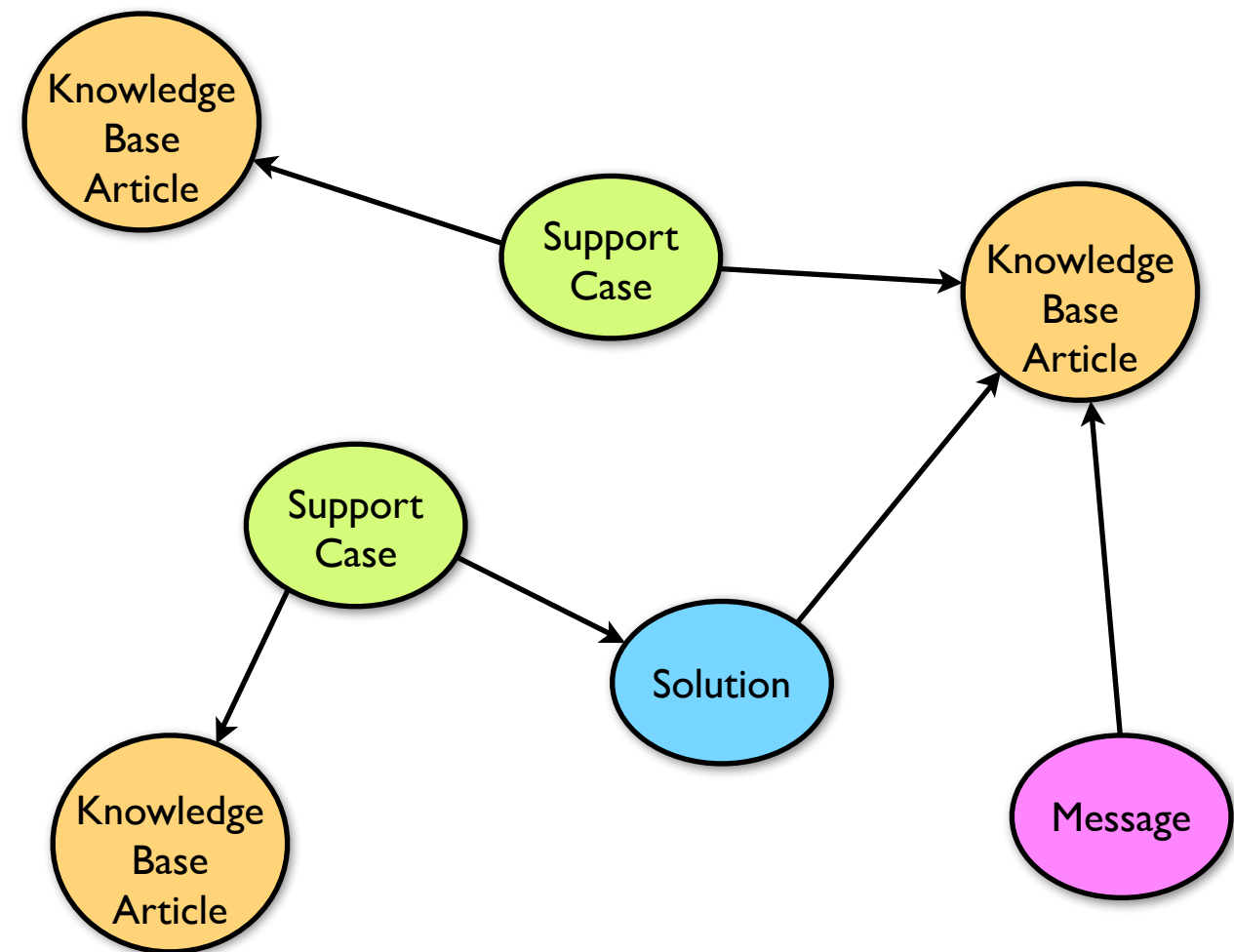
Support Case Avoidance

Challenge

- Support cost & resolution times too high
- RDBMS infrastructure did not support expansion

Results

- Faster answers for customers, with lower reliance on support



“ “ Relational databases have a hard time dealing with the complexities of connected data.

– Prem Malhotra,
Director Enterprise Architecture

MDM / Recommendations

Challenge

- Constructing a 360° view of the customer for the sales team
- IBM DB2 system not able to meet performance requirements



Results

- Flexibly search for insurance policies and associated personal data
- Migration and deployment was easy



Patient transition & referral

Challenge

- Real-time search on Oracle not fast enough for next gen product
- Handling 15% of all transitions nationwide in the US

Results

- Real-time deep recommendations on widely heterogeneous data



Come talk to us about the graphs you see!

Upcoming events:

- Stockholm Training on Oct 17
- Øredev Training on Nov 4