

# JUDCon

JBoss Users & Developers Conference

# London:2011

# Introducing



# HIBERNATE OGM

**JBoss Community**

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ogm-kitchensink

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# About me

- Hibernate Team member w/ focus on Validator and Search
- [in.relation.to/Bloggers/hardy](http://in.relation.to/Bloggers/hardy)
- [hardy@hibernate.org](mailto:hardy@hibernate.org)



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# About Sanne

- Also part of the Hibernate Team
- ...



OMG  
Oh  
My  
God

JBoss Community



# OGM

# Object

# Grid

# Mapper

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# What are we going to talk about?

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- What is OGM?
- How to compare RDBMS vs NoSQL?
- How to convert an existing JPA app to OGM?
- How to push OGM app to OpenShift?

# What is Hibernate OGM!?

JPA for NoSQL

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JPA for NoSQL



# What is Hibernate OGM!?

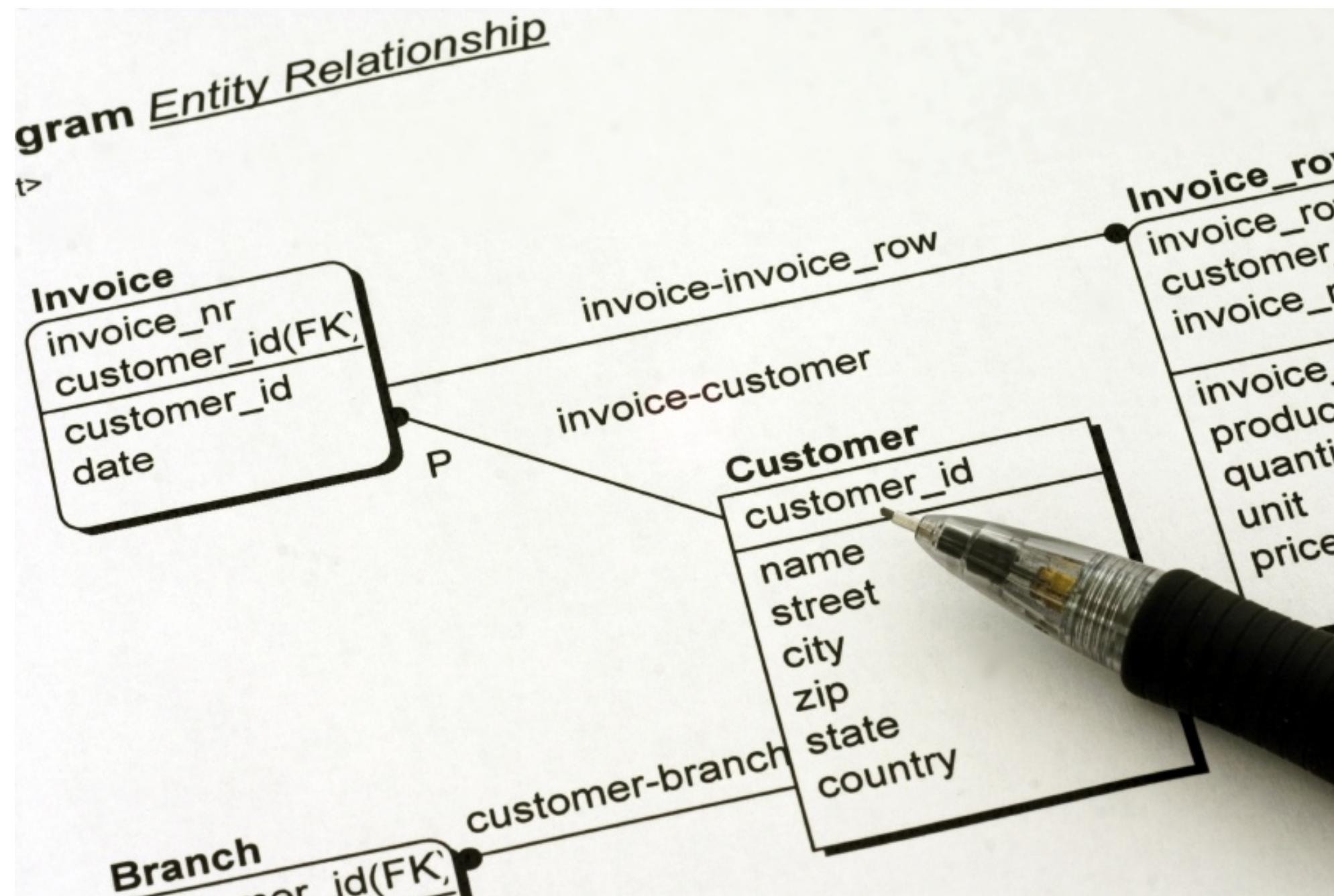
JPA for NoSQL





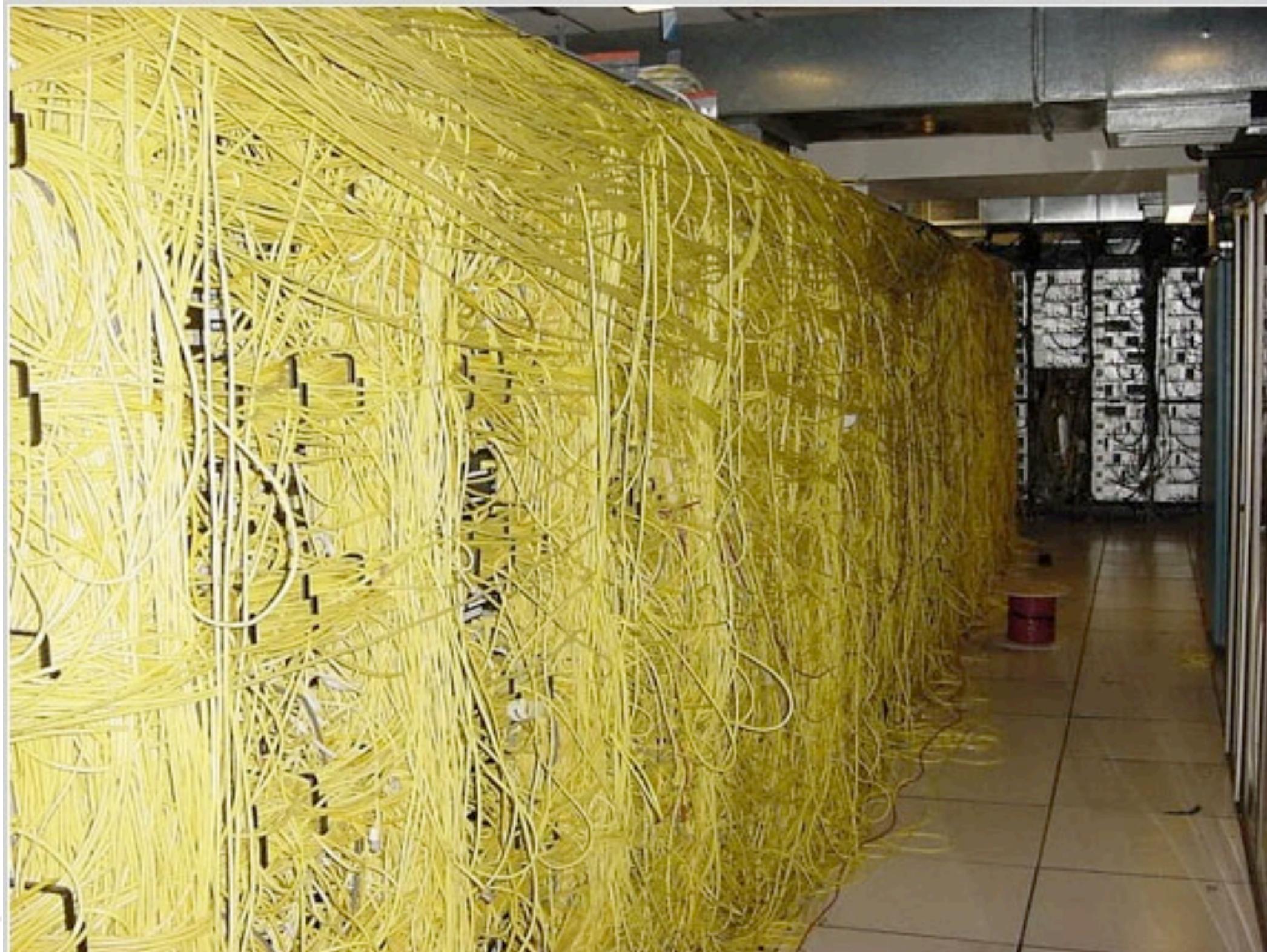
- Encourage new data usage patterns
  - provide familiar environment
  - ease of use
  - easy to jump in (and out!)
- Push NoSQL exploration

# Relational Databases



- Transaction
- Referential integrity
- Types
- Well understood
  - tuning, backup, resilience

# Relational Databases



But scaling is hard!

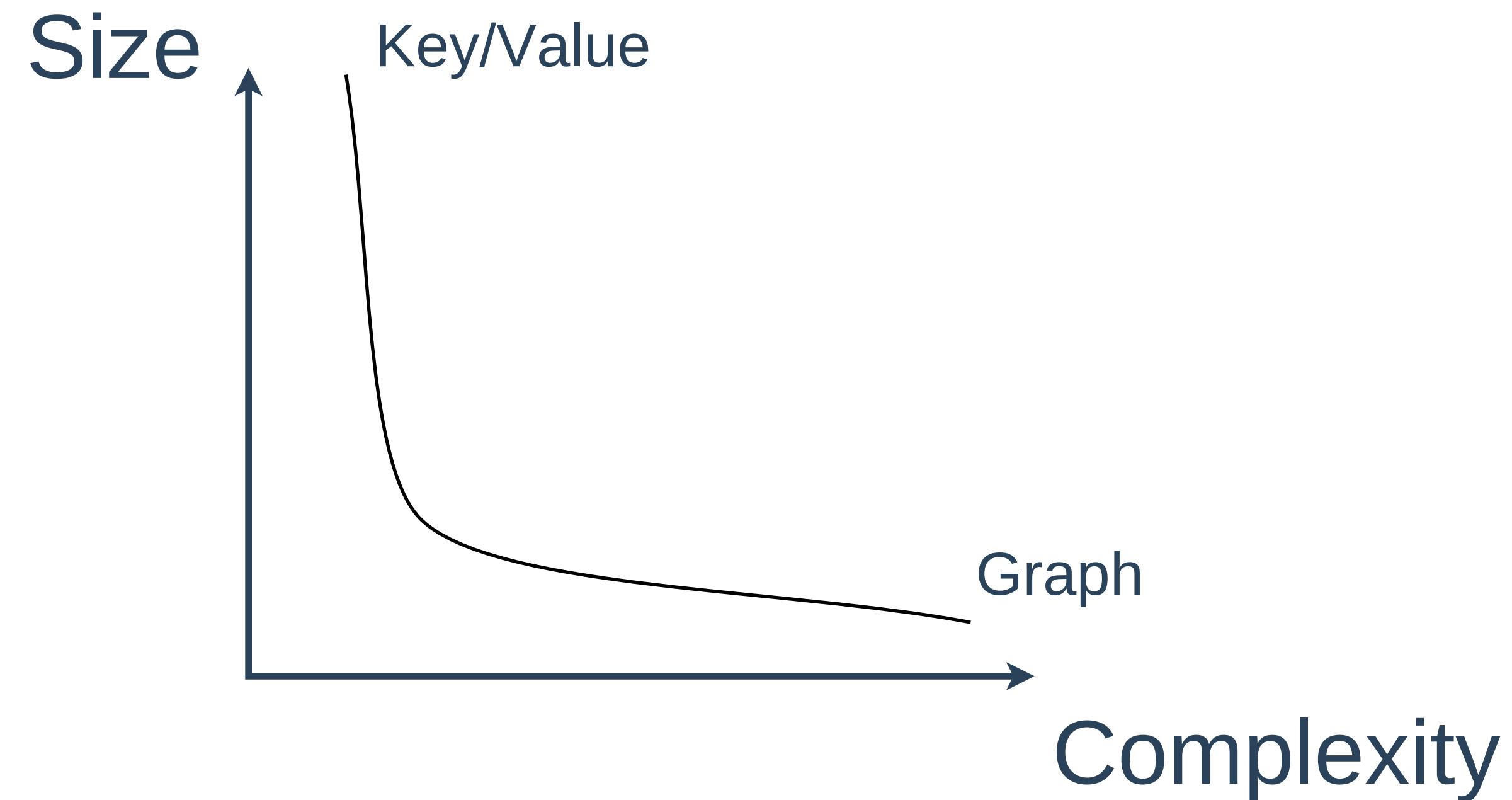
- Replication
- Multiple instances w/ shared disk
- Sharding

# NotOnlySQL

- Data size
- Connectedness
- Architecture

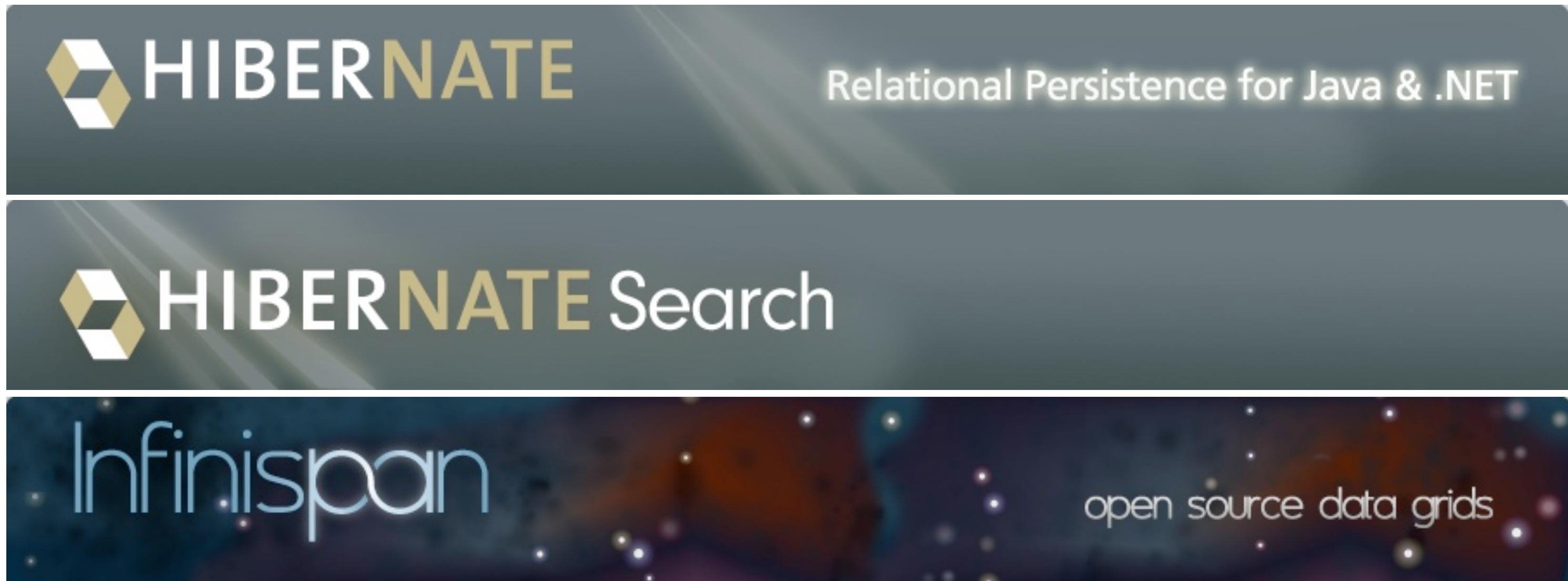
# NotOnlySQL

- Document based stores
- Column based
- Graph oriented databases
- Key / value stores

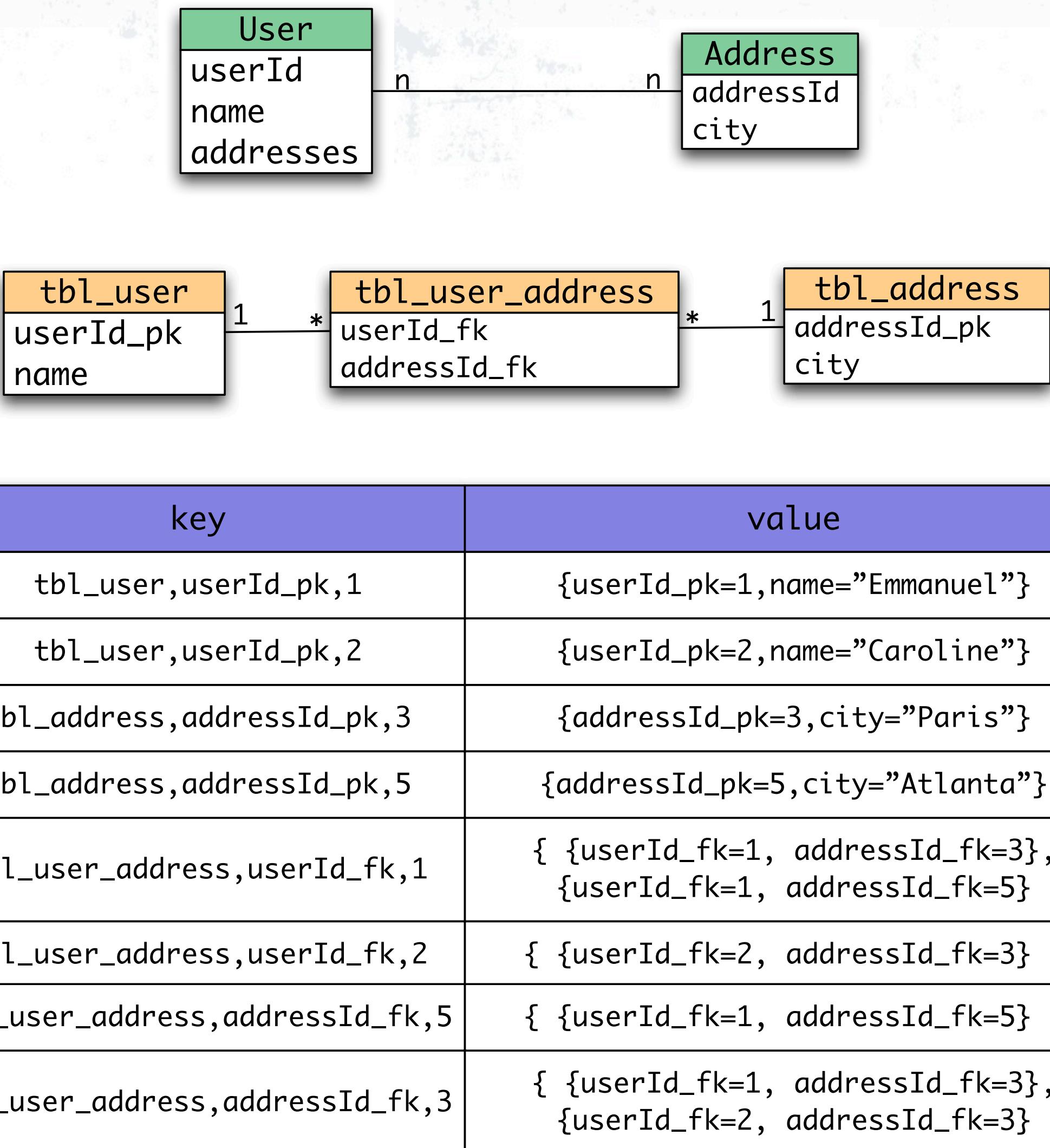


# A word about

## ACID vs BASE



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# How does it work?

- Entities are stored as tuple (Map<String, Object>)
- The key is composed of
  - table name
  - entity id
- Collections are represented as a list of tuple
- The key is composed of:
  - table name hosting the collection information
  - column names representing the FK
  - column values representing the FK

# Demo

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# What have we just done?

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# What have we just done?

- Used a JBoss AS 7 module

# What have we just done?

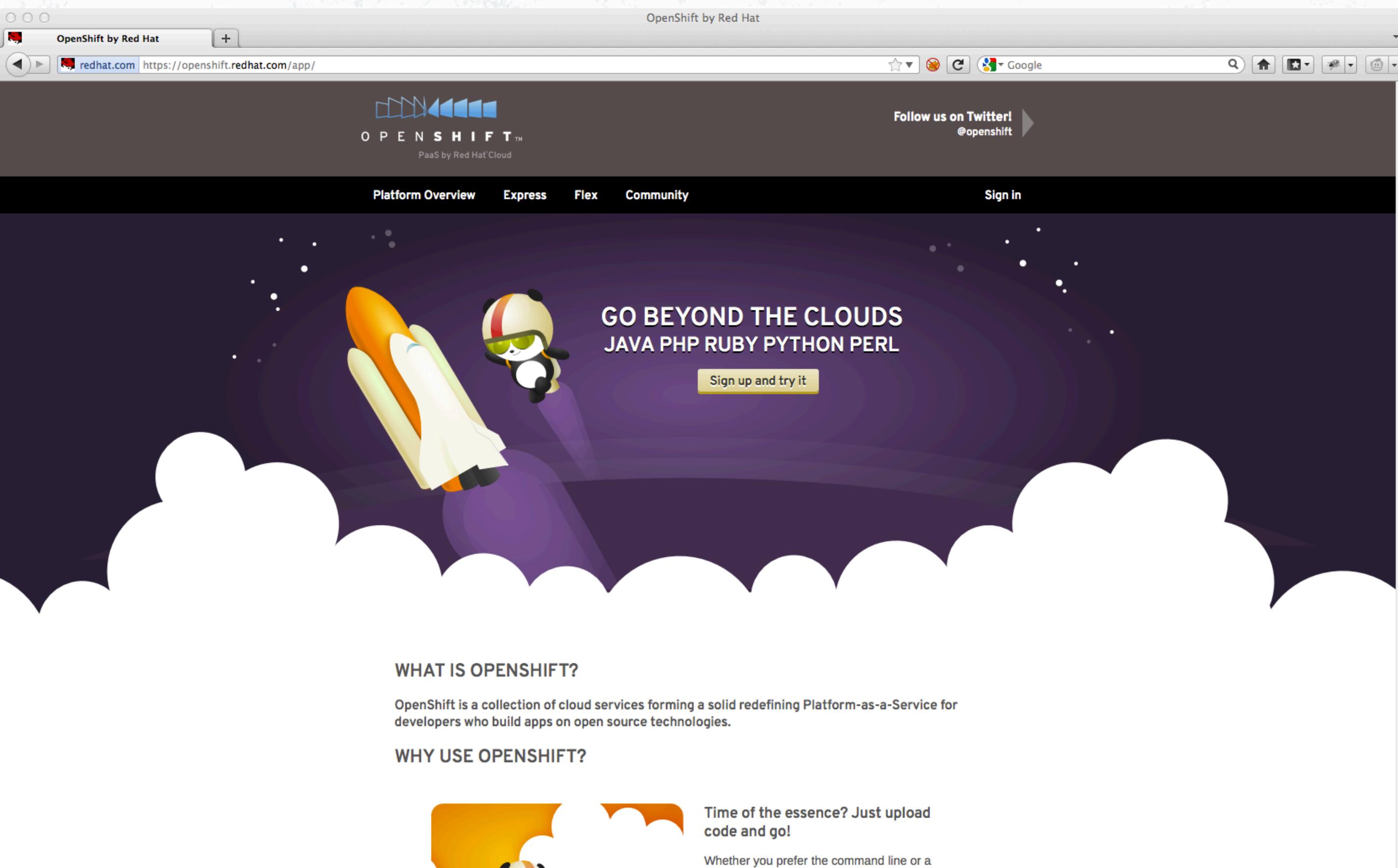
- Used a JBoss AS 7 module
- Changed persistence provider

# What have we just done?

- Used a JBoss AS 7 module
- Changed persistence provider
- Switched to UUID

# What have we just done?

- Used a JBoss AS 7 module
- Changed persistence provider
- Switched to UUID
- Replaced Criteria w/ Hibernate Search



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# What is OpenShift!?

- Free, cloud-based application platform
- Supports Java, Perl, PHP, Python, and Ruby
- Comes in the flavors Express and Flex
- Controlled via ruby scripts
- Deployment is as easy as: `git push`



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# Demo

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# What have we just done!?

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- Created OpenShift domain and app

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# What have we just done!?

- Created OpenShift domain and app
- Enabled OpenShift maven profile
- Added AS module
- Pushed repo
- Watched and marveled

# What's hot?



- Works now with Hibernate Core 4
- Improved performance - x %
- ...

# Summary

- JPA for NoSQL
  - Reusing mature projects
  - Keep the good of the relational model
  - Query via Hibernate Search
- 
- JP-QL support on its way
  - Still early in the project

# <http://www.hibernate.org/subprojects/ogm.html>

The screenshot shows a web browser window displaying the Hibernate OGM project page on the JBoss Community website. The page title is "Hibernate OGM - JBoss Community". The main content area features the "HIBERNATE OGM" logo and a navigation bar with links for Overview, Downloads, Documentation, Community, Issue Tracker, Source Code, and Build. A search bar for project pages is also present. The main text discusses the aims and target features of Hibernate OGM, mentioning support for Infinispan, Hibernate Search full-text queries, and simple JP-QL queries. It also notes the medium target for other key/value stores, NoSQL families, and complex joins/aggregations. The page is Open Source and released under the LGPL license. A sidebar on the right lists "HIBERNATE Core", "HIBERNATE Shards", "HIBERNATE Search", "HIBERNATE Tools", "HIBERNATE Validator", "HIBERNATE Metamodel Generator", and "HIBERNATE OGM". Below this is a "Quick Links" section with links to Download, Documentation, Wiki, and Ohloh Profile. At the bottom is a logo for "Cloud.TM" with the tagline "A novel programming paradigm for the Cloud".

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# Q + A

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