

Couch*

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Couchbase

Bolsena OSGeo Code Sprint 2012
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Bolsena

License

Apache License Version 2.0

Apache CouchDB

- Document-oriented database
- Awesome concepts
 - ▶ JSON
 - ▶ RESTful API
 - ▶ CouchApps
 - ▶ Replication

Replication

No connection



There was a connection



Bild: Naval Air Crewman 1st Class Jay Okonek

Replication



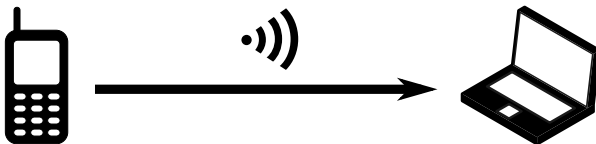
Replication



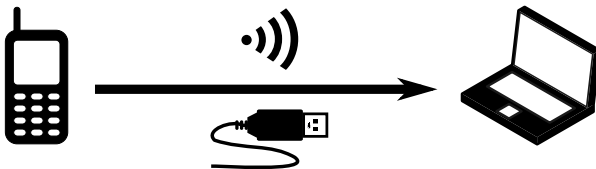
Replication



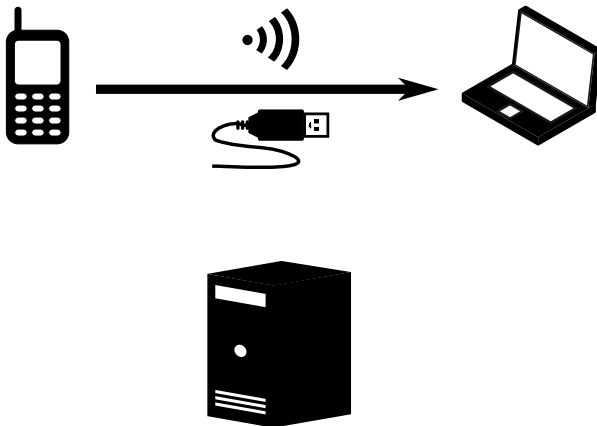
Replication



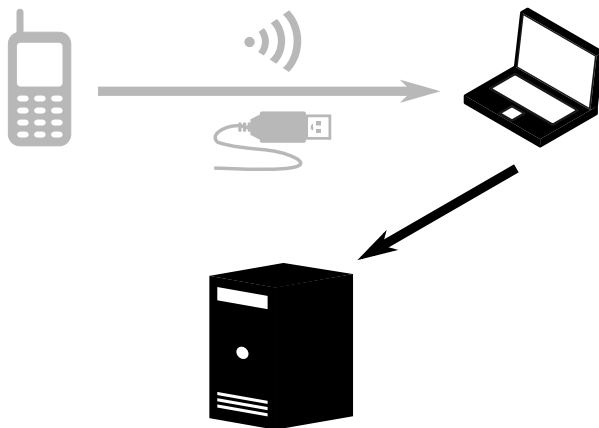
Replication



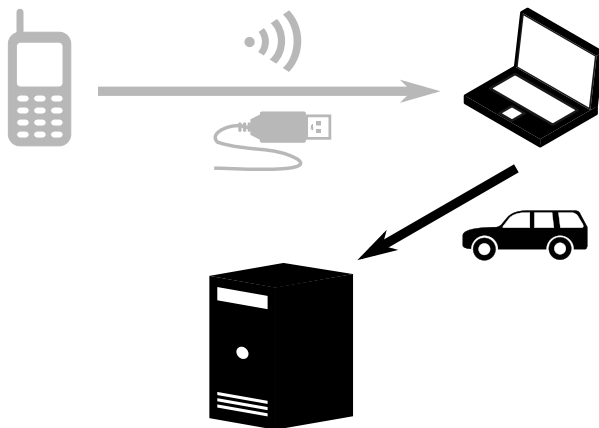
Replication



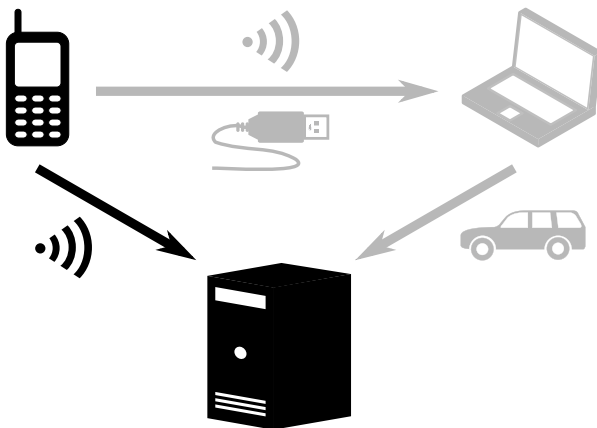
Replication



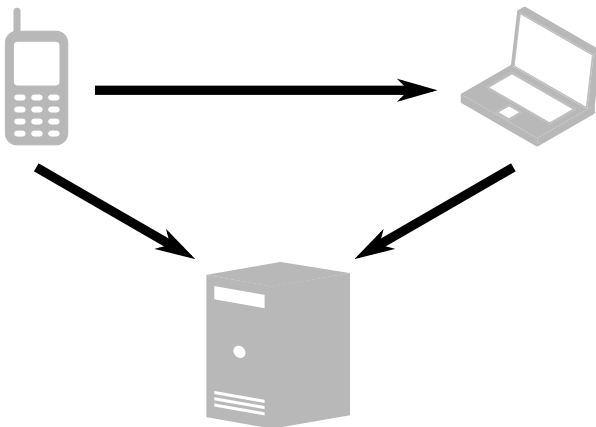
Replication



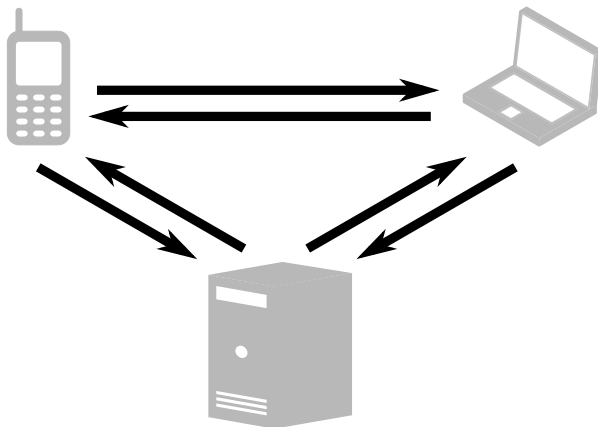
Replication



Replication



Replication



GeoCouch

What is GeoCouch?



Bilder: Greg Habermann, NASA

Features

- All types of (Geo)JSON geometries (not only point)
- HTTP API (OpenSearch)
- JSON
- Bounding box queries, geometry queries

GeoCouch (CouchDB) Users

- Tile-Cache: MapProxy

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- Tile-Cache: MapProxy
- Vektordaten: GeoCouch + MapQuery

GeoCouch (CouchDB) Users

- Tile-Cache: MapProxy
- Vektordaten: GeoCouch + MapQuery
- Backend: GDAL, GeoTools, deegree, Imposm

Future

- Extending the query capabilities
 - ▶ k-nearest neighbour search (prototype from Tobias Sauerwein exists)
 - ▶ Radius

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 - ▶ k-nearest neighbour search (prototype from Tobias Sauerwein exists)
 - ▶ Radius
- Multidimensional queries

GeoNetwork and CouchDB?

- Replication vs. harvesting
- JSON vs. XML
- CouchApps vs. Server-sided Java

Couch*

BigCouch

- Clustering CouchDB (Dynamo like)
- Supported by Cloudbant
- Will become part of Apache CouchDB
- No geo yet

PouchDB

- CouchDB compatible replication
- Storage: IndexedDB (HTML5)
- Runs in Browser (Firefox 4, Chrome 11, IE 10)
- No geo yet

TouchDB

- Database for mobile devices (Android and iOS)
- CouchDB compatible replication
- Fast startup, low footprint
- Storage: SQLite
- No geo yet

Couchbase Syncpoint

- Extension to CouchDB and TouchDB
- Trigger creation of user accounts (databases)
- Authentication
- Channels

Couchbase is not Apache CouchDB!



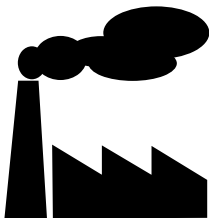


Couchbase

Firmenname



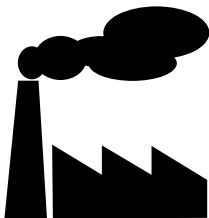
CouchBase



Firmenname und Produkt



Couchbase

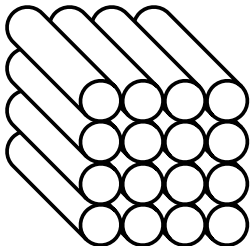


Couchbase Server

- Document-oriented
- JSON
- GeoCouch

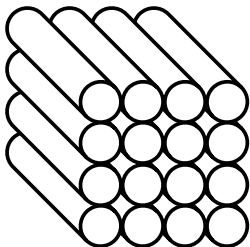
Goals of Couchbase Server

Distributed data

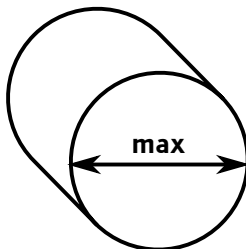


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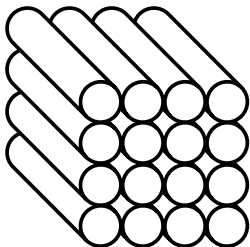


High throughput

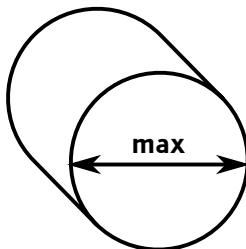


Goals of Couchbase Server

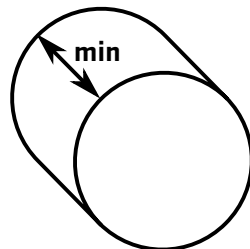
Distributed data



High throughput



Low latency



Software using Couchbase

- deegree

Thanks!

Get in touch

- Website: <http://vmx.cx/>
- Github: <https://github.com/vmx/>
- IRC: vmx @ freenode
- Email: volker@couchbase.com
- Jabber: [volker@vmx.cx](xmpp:volker@vmx.cx)
- Twitter: [@vmische](https://twitter.com/vmische)