

Brad Wood  
Ortus Solutions

# CFML and Couchbase

- ColdFusion Architect (12 years)
- Geek
- Android Lover
- Blogger ([codersrevolution.com](http://codersrevolution.com))
- ColdBox Platform Evangelist
- Musician
- Shade-Tree Mechanic
- Husband (11 years)
- Dad (3 beautiful girls)



## About Brad



- CFML Gurus
- ColdBox MVC Platform and ContentBox CMS
- Consulting/Server Tuning
- Custom Development
- Training & Mentoring

[ortussolutions.com](http://ortussolutions.com)



# About Ortus

Rate your understanding of NoSQL

**Poll**

- Distributed and scalable NoSQL database
- Supports key-value and document-oriented uses
- Open source under Apache 2.0 public license
- Available in enterprise and community editions

## What is Couchbase

- Fast (async operations)
- Scales Horizontally
- Auto-document sharding
- Auto replicas and node failover
- Online topology changes
- Nice web admin, CLI, & REST API
- Flexible JSON document model

## Couchbase Features



# What is Couchbase





## Easy Scalability

Grow cluster without application changes, without downtime with a single click



## Consistent High Performance

Consistent sub-millisecond read and write response times with consistent high throughput



## Always On 24x365

No downtime for software upgrades, hardware maintenance, etc.



## Flexible Data Model

JSON document model with no fixed schema.

# Couchbase Core Principles



What would you use Couchbase for?

**Poll**

## User

<b>id</b> integer	<b>FirstName</b> varchar(100)	<b>lastName</b> varchar(100)	<b>age</b> Integer	<b>DOB</b> date
1	Mickey	Mouse	86	10/18/1928
2	Minnie	Mouse	86	10/18/1928

## Address

<b>id</b> integer	<b>userID</b> integer	<b>address</b> varchar(255)
1	1	2100 W Riverside Dr. Burbank, CA
2	2	1180 Seven Seas Dr. Lake Buena Vista, FL

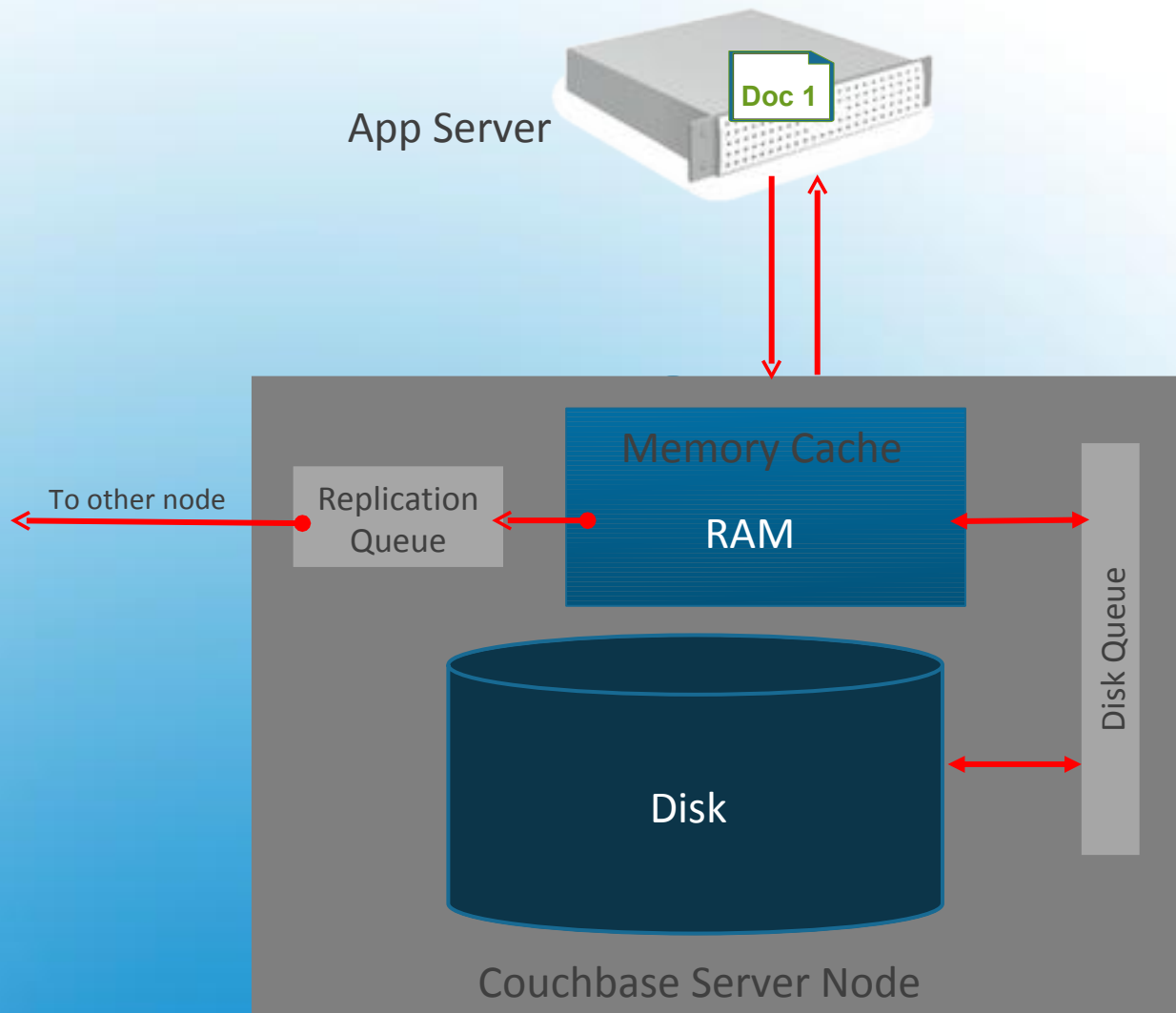
# Traditional Data Model

```
{  
  "firstName": "Mickey",  
  "lastName": "Mouse",  
  "age": 86,  
  "DOB": "10/18/1928",  
  "catchphrase": "Hot Diggity Dog!",  
  "addresses": [  
    "2100 W Riverside Dr. Burbank, CA"  
  ]  
}
```

## NoSQL Document Store (JSON)

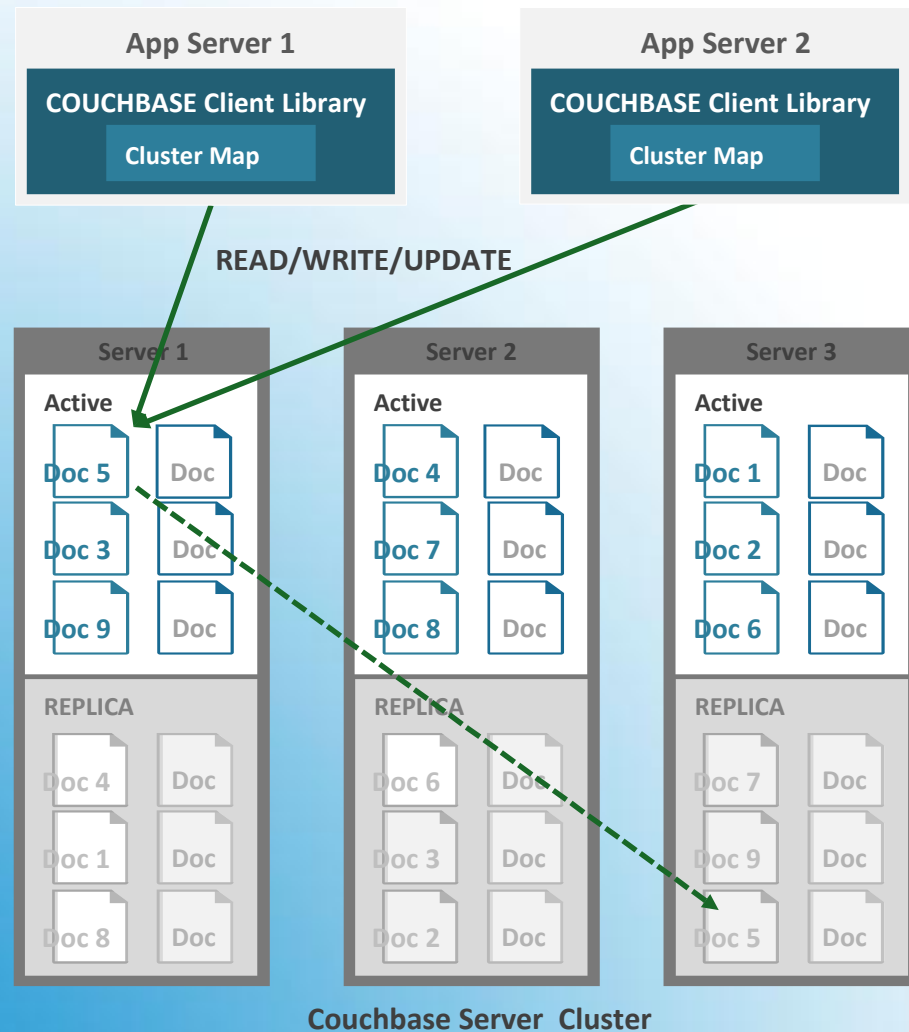
- Database stays online, no downtime for schema changes
- Records can have different structures, there is no fixed schema
- Model Data easier and faster -- agile rapid application development

## Flexible Data Model



# Async Operation

- Docs distributed evenly across servers
- Each server stores both active and replica docs
- Client library provides app with simple interface to database
- Cluster map provides map to which server doc is on
- Multiple app servers can access same document at same time

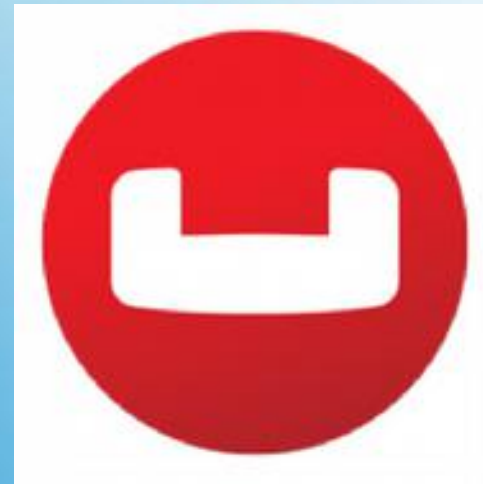
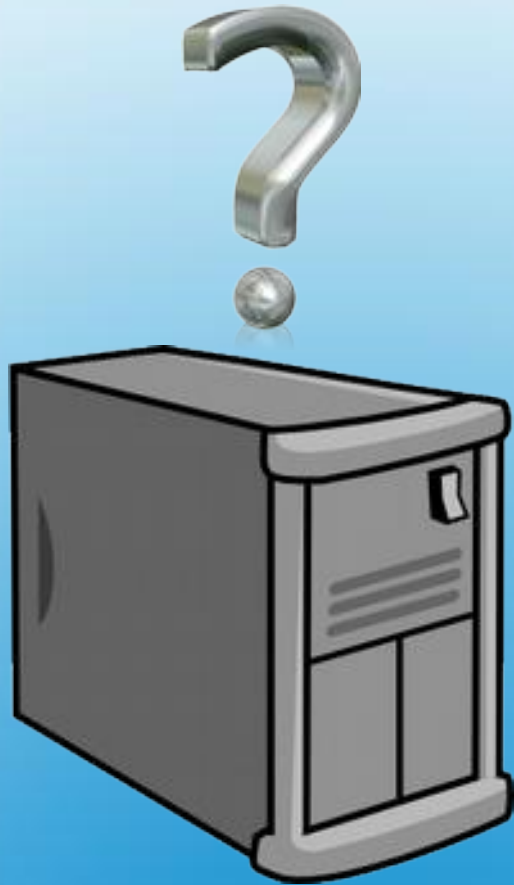


# Cluster Interaction

What are the major deliverables do you want from NoSQL

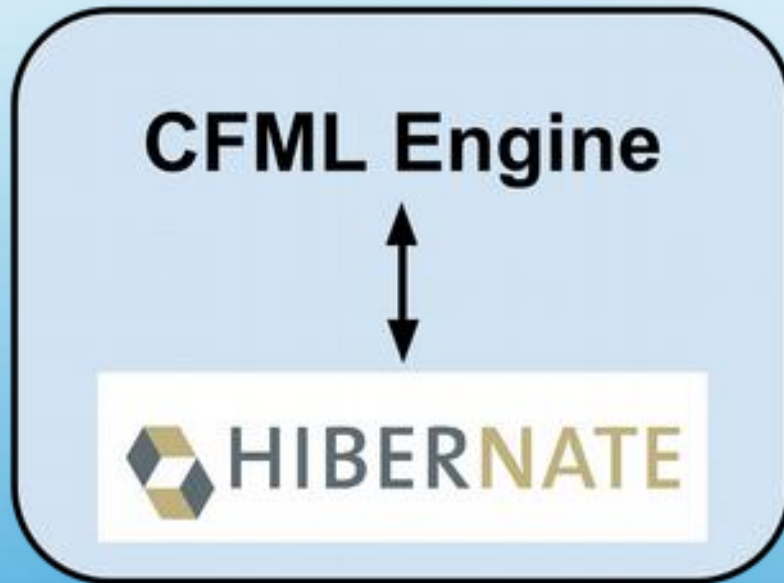
**Poll**





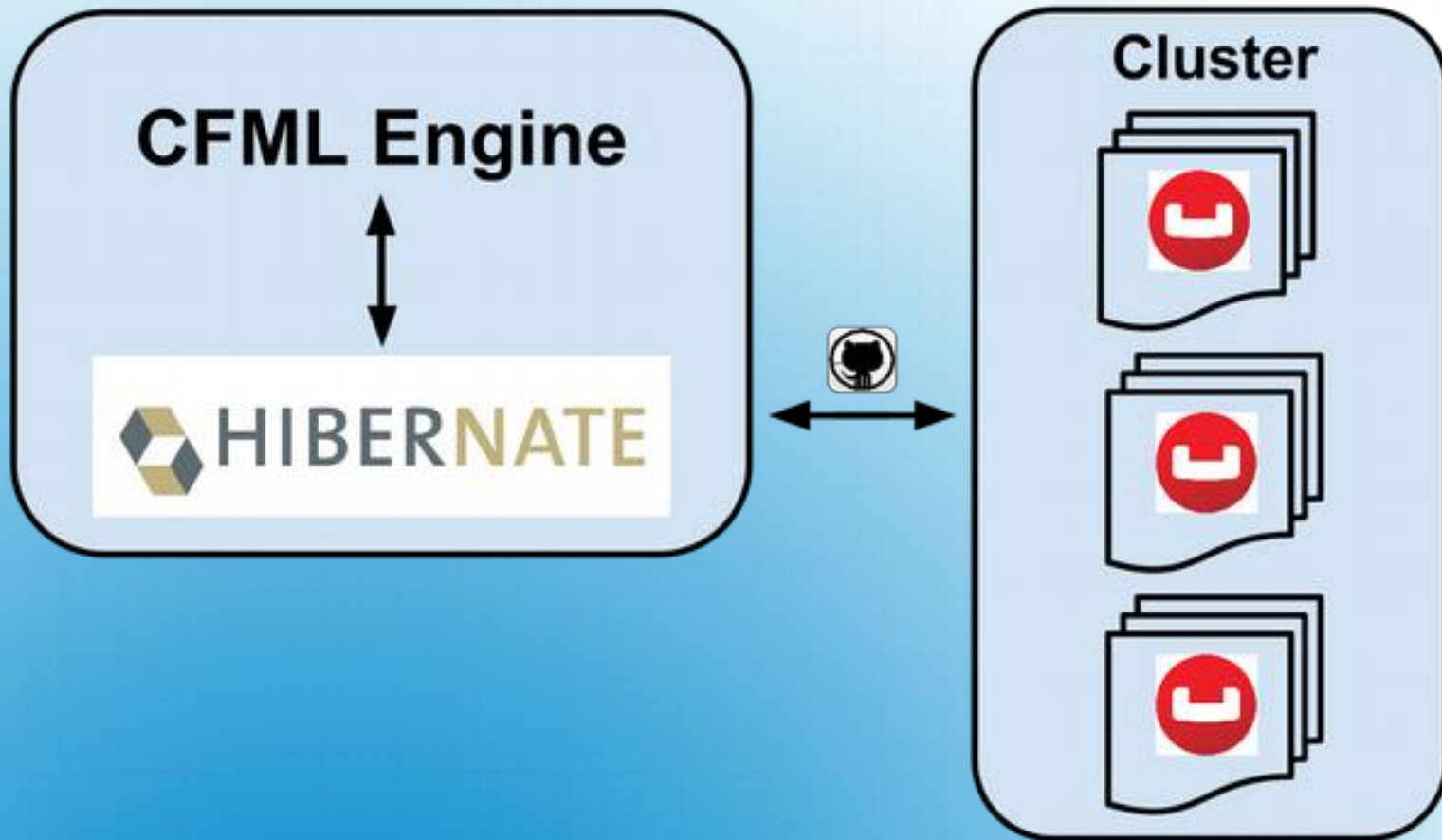
# Couchbase in CFML

# ORM 2<sup>nd</sup> Level Cache



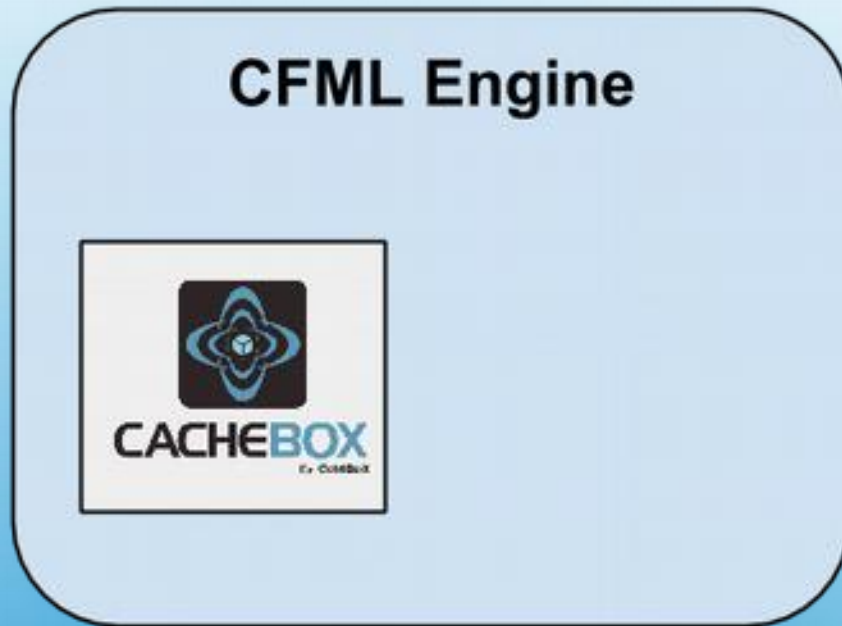
**Couchbase in CFML**

# ORM 2<sup>nd</sup> Level Cache



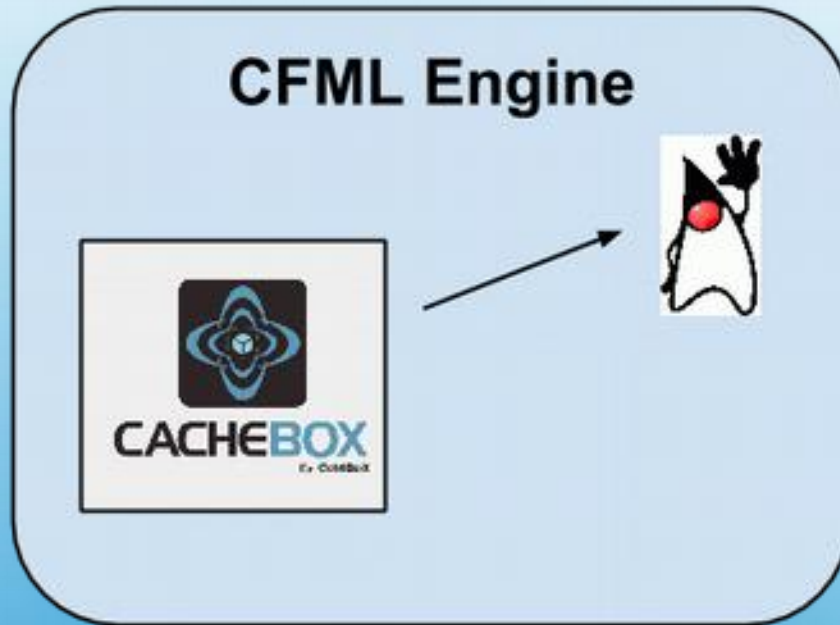
**Couchbase in CFML**

# CacheBox Cache Aggregator and API



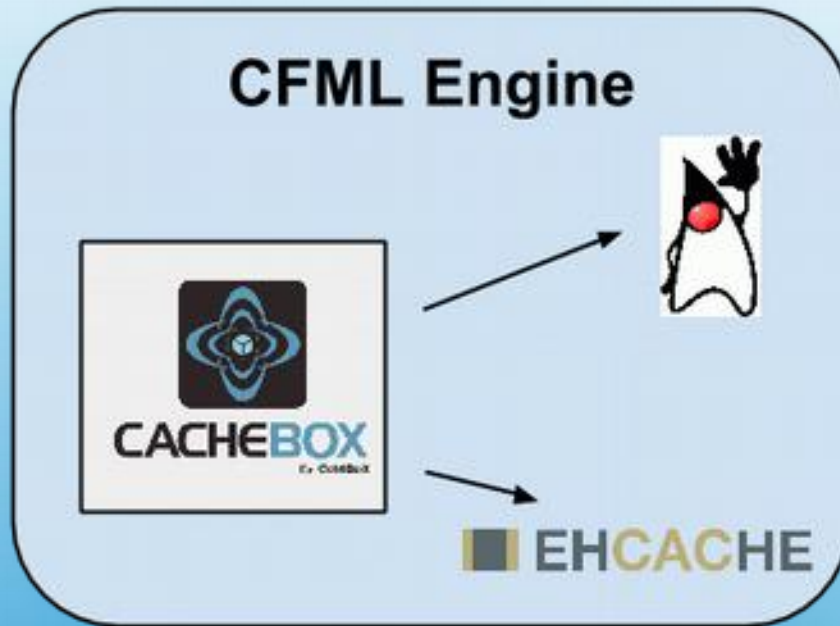
## Couchbase in CFML

# CacheBox Cache Aggregator and API



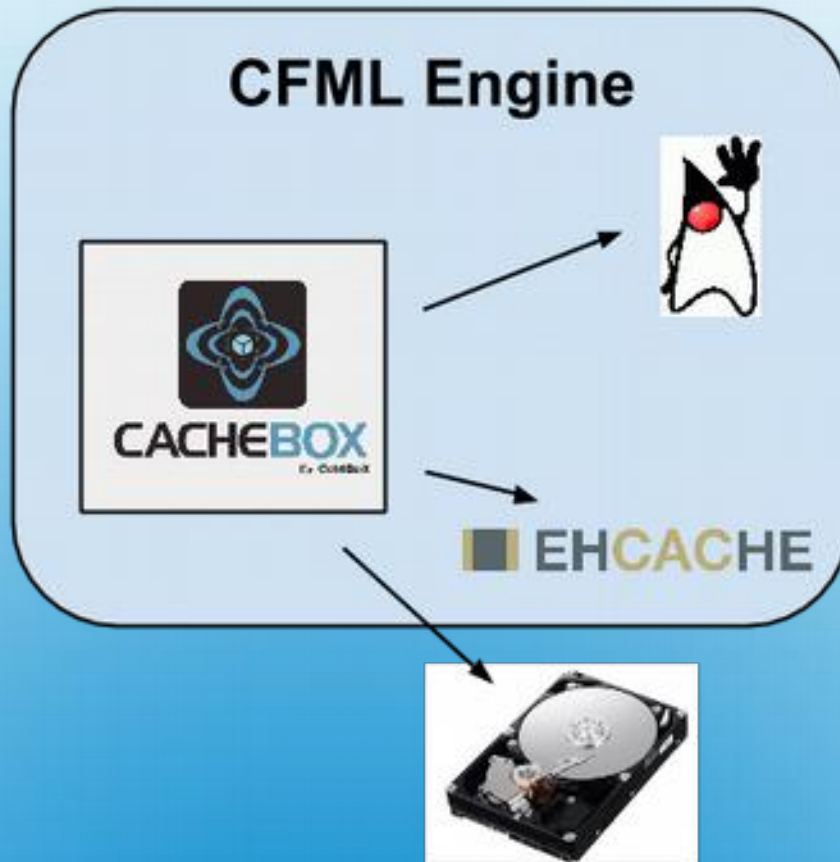
**Couchbase in CFML**

# CacheBox Cache Aggregator and API



**Couchbase in CFML**

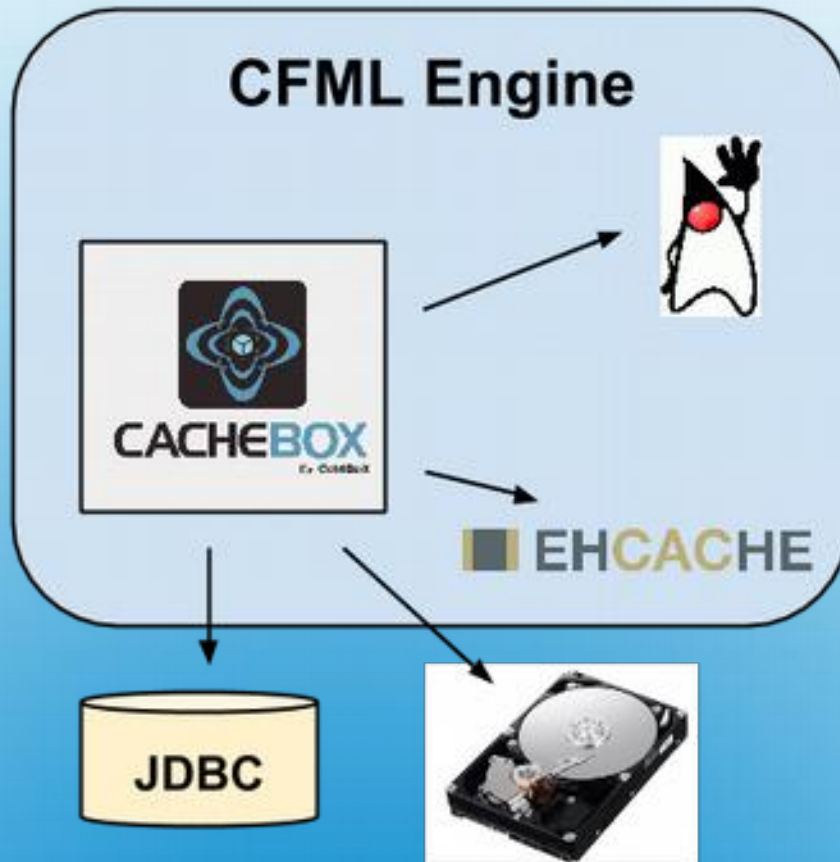
# CacheBox Cache Aggregator and API



**Couchbase in CFML**

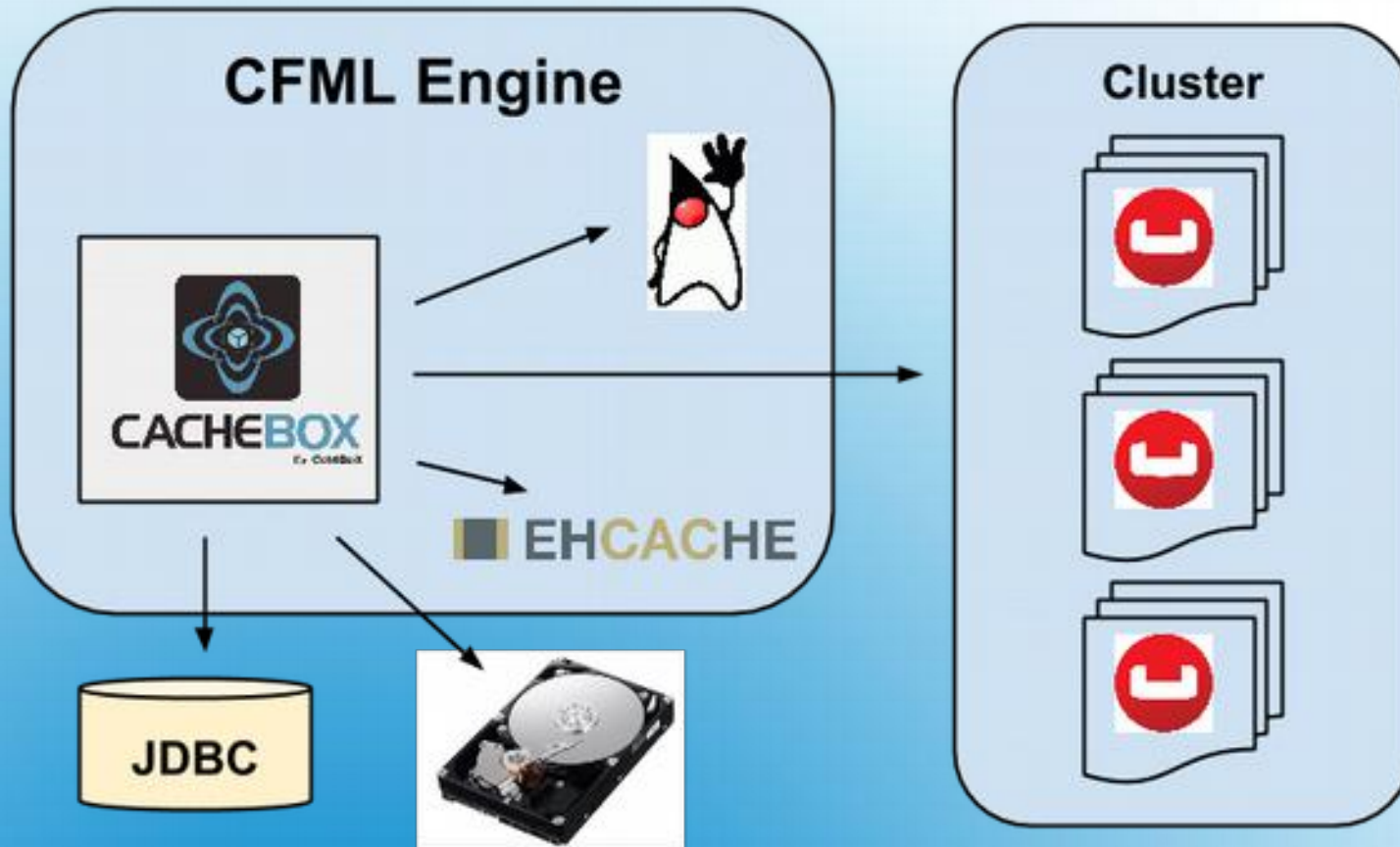


# CacheBox Cache Aggregator and API



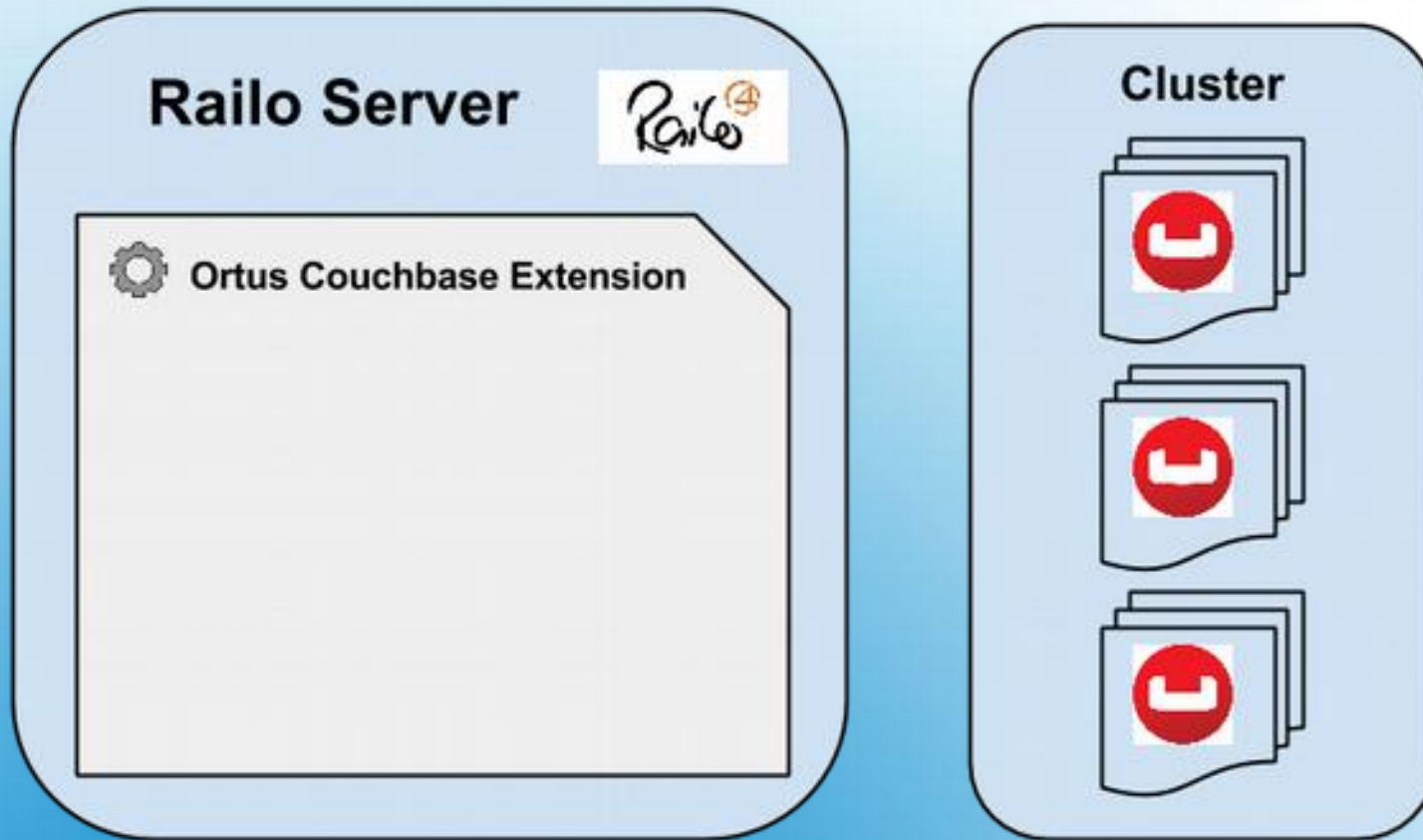
## Couchbase in CFML

# CacheBox Cache Aggregator and API



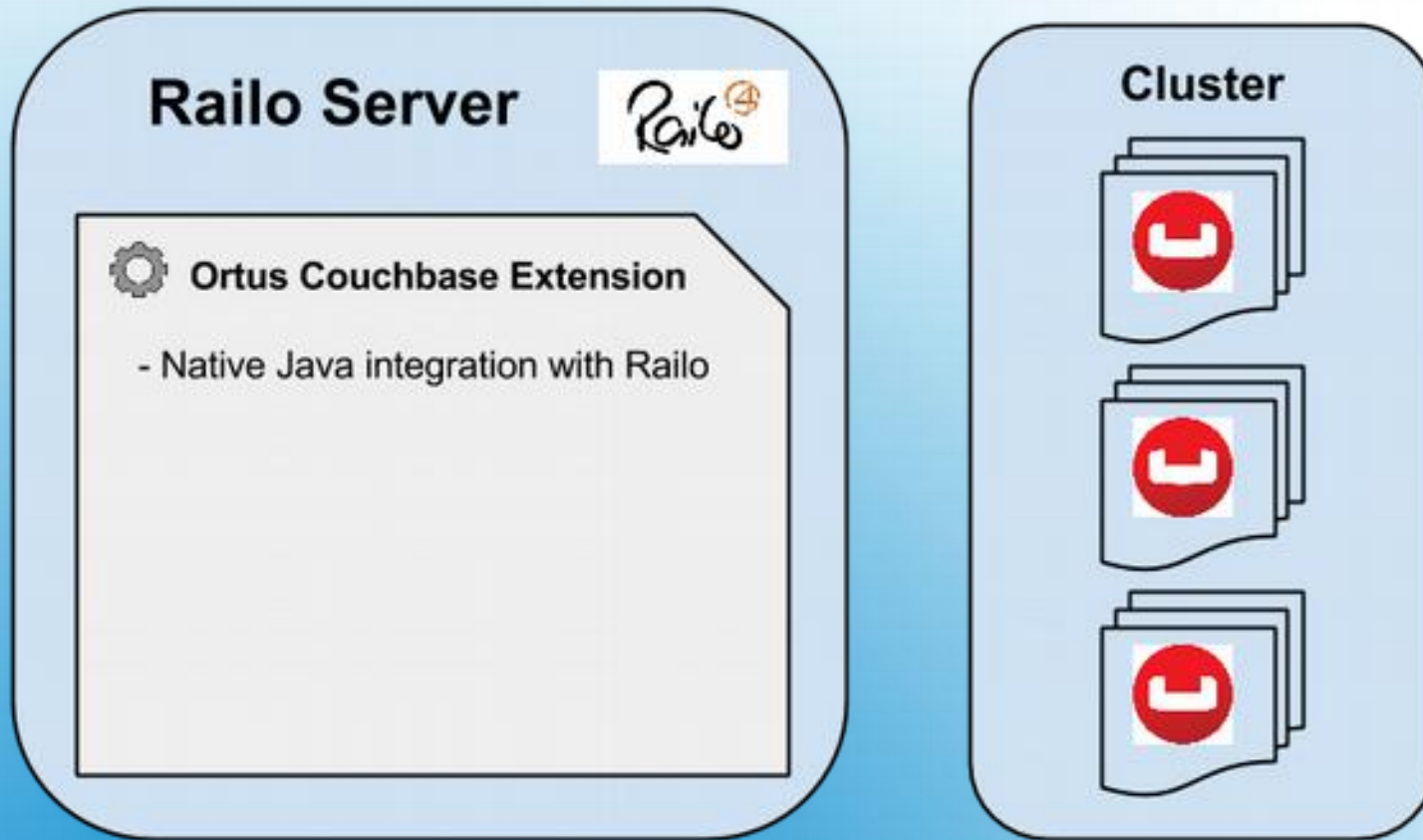
## Couchbase in CFML

# Ortus Couchbase Railo Extension



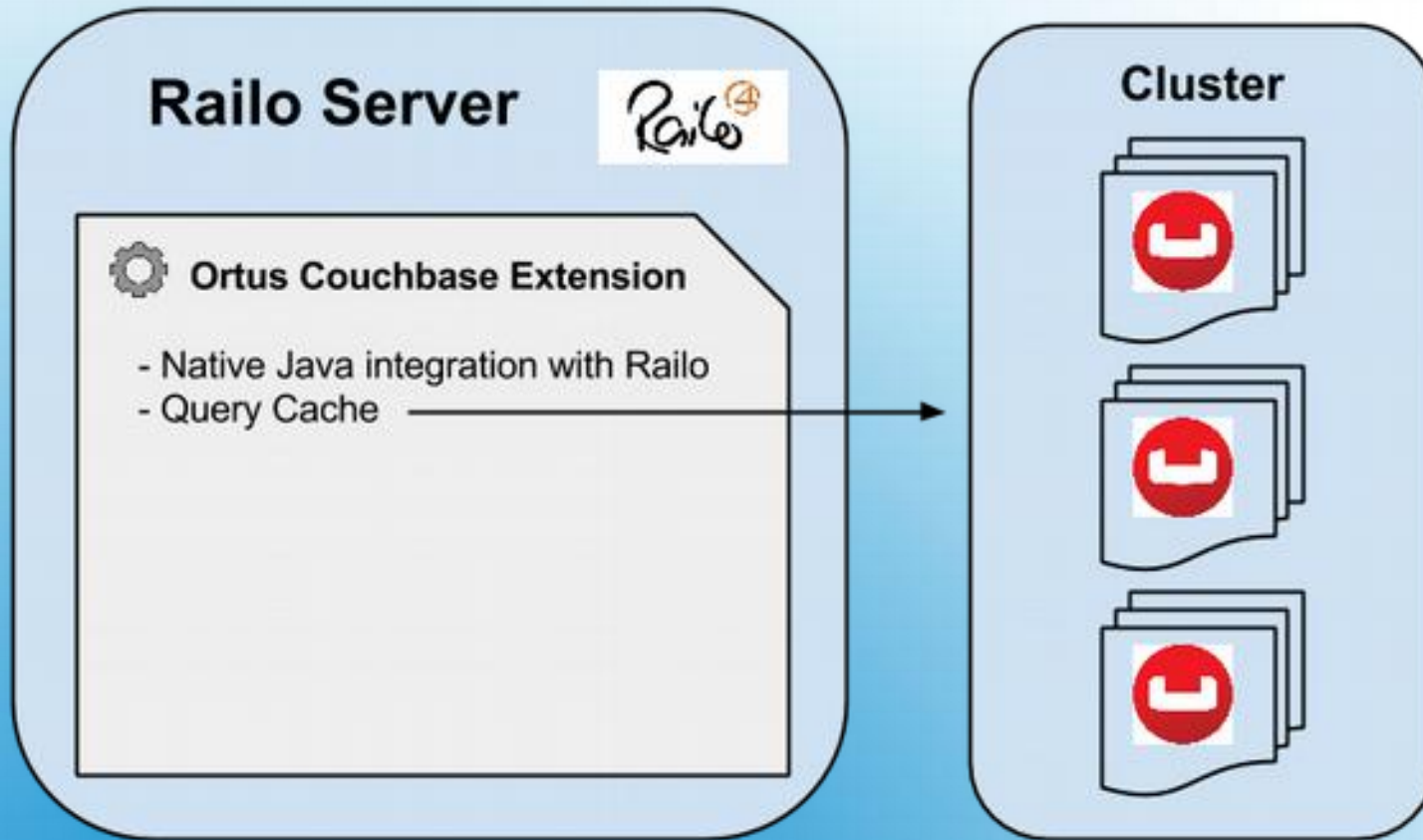
**Couchbase in Railo**

# Ortus Couchbase Railo Extension



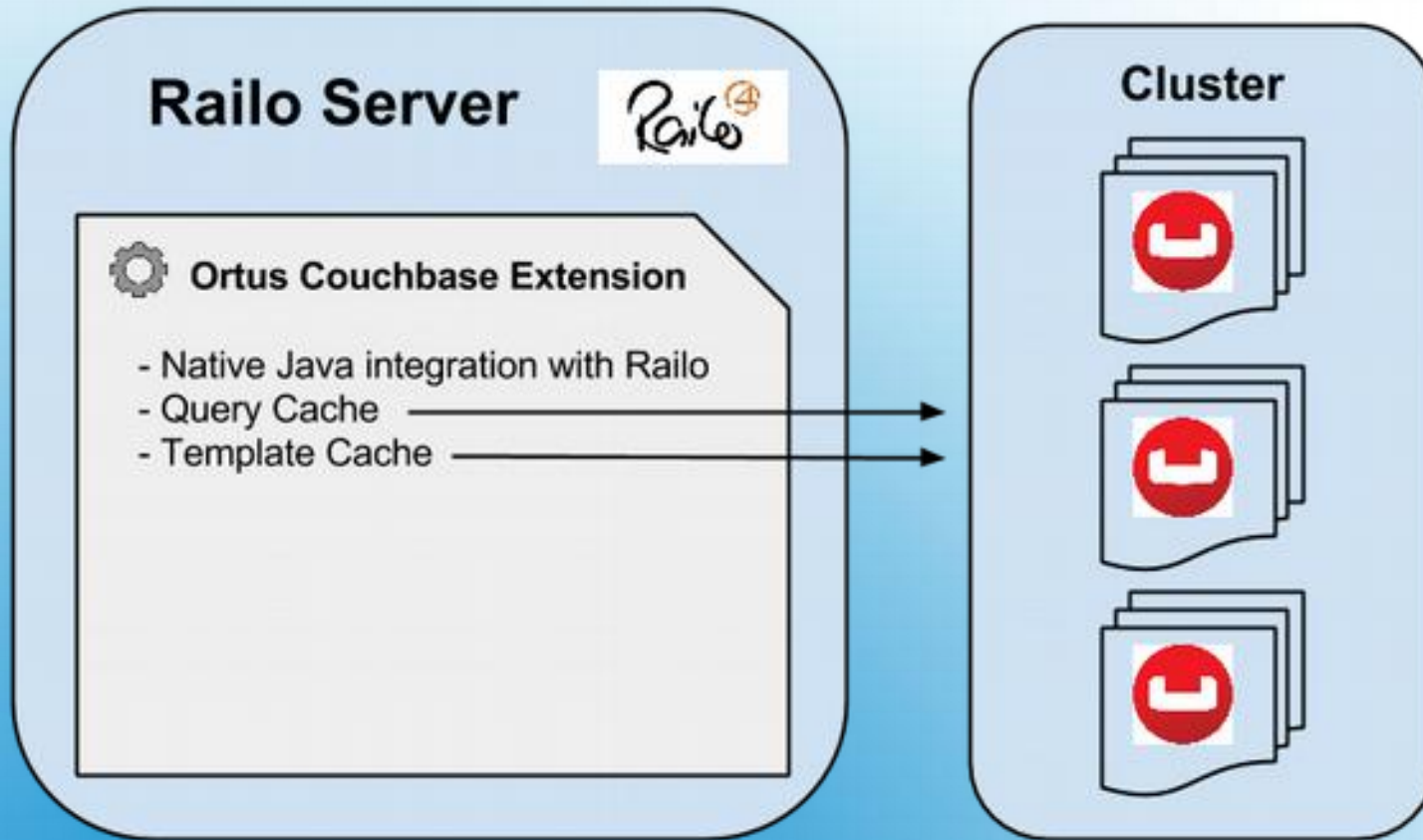
**Couchbase in Railo**

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**Couchbase in Railo**

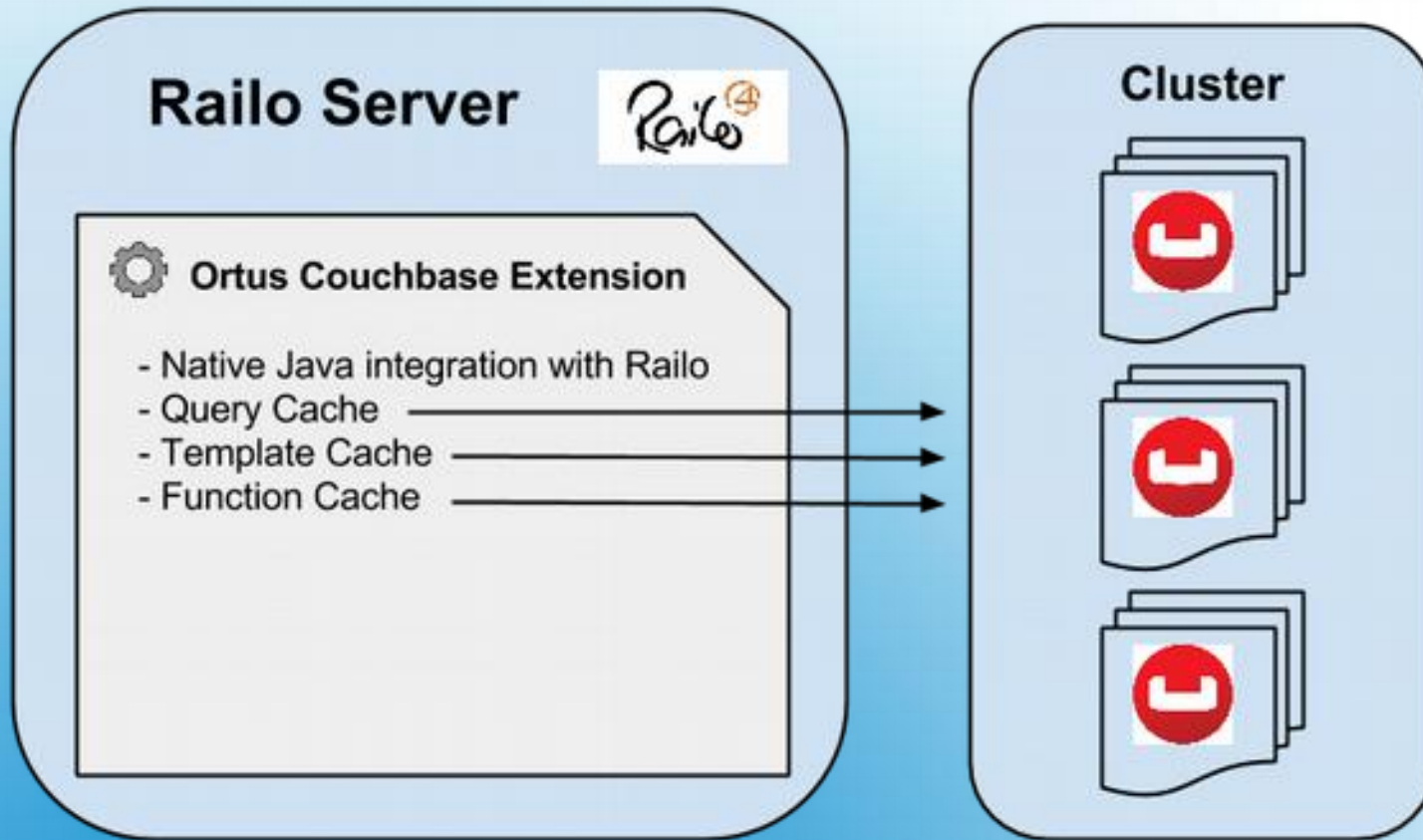
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**Couchbase in Railo**



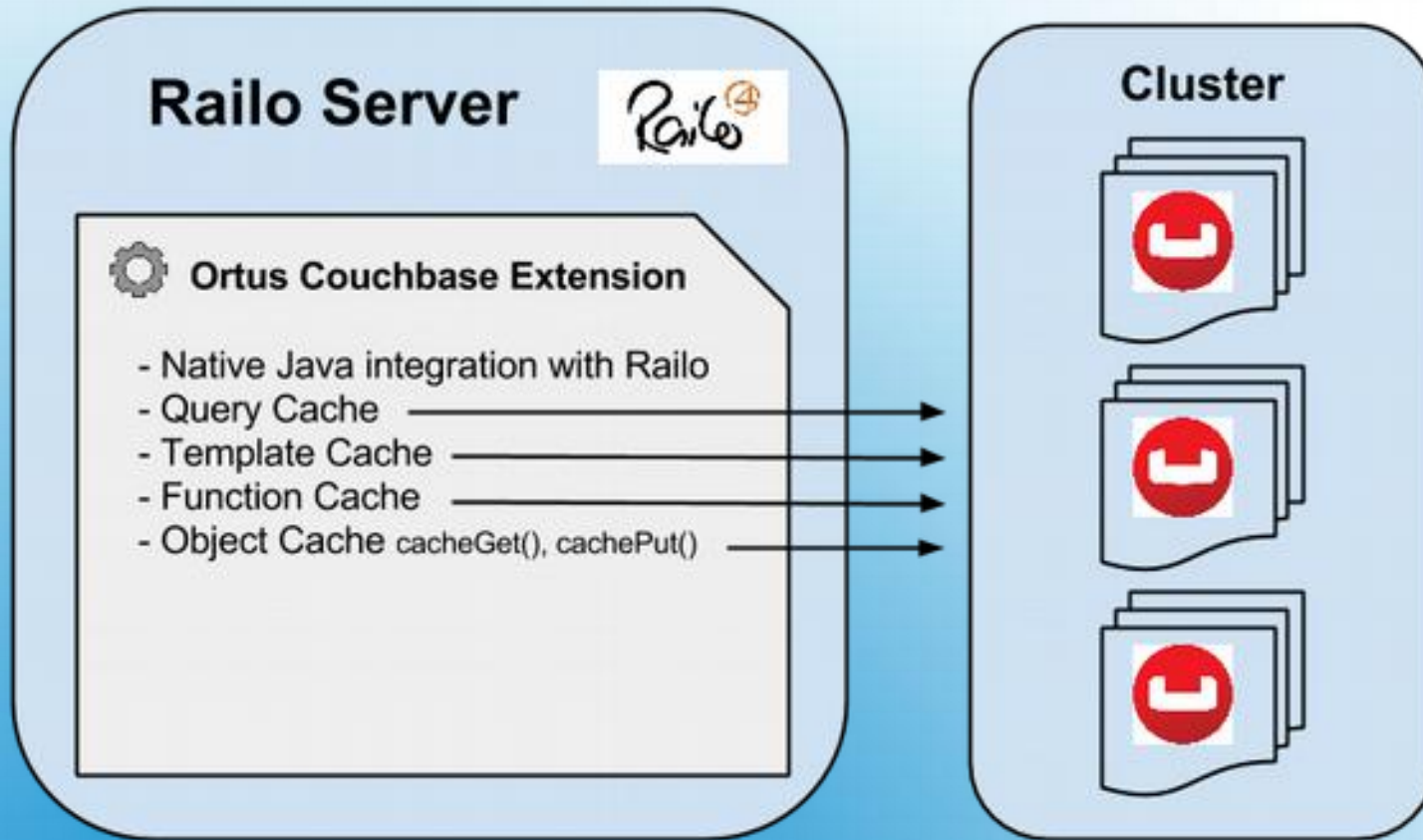
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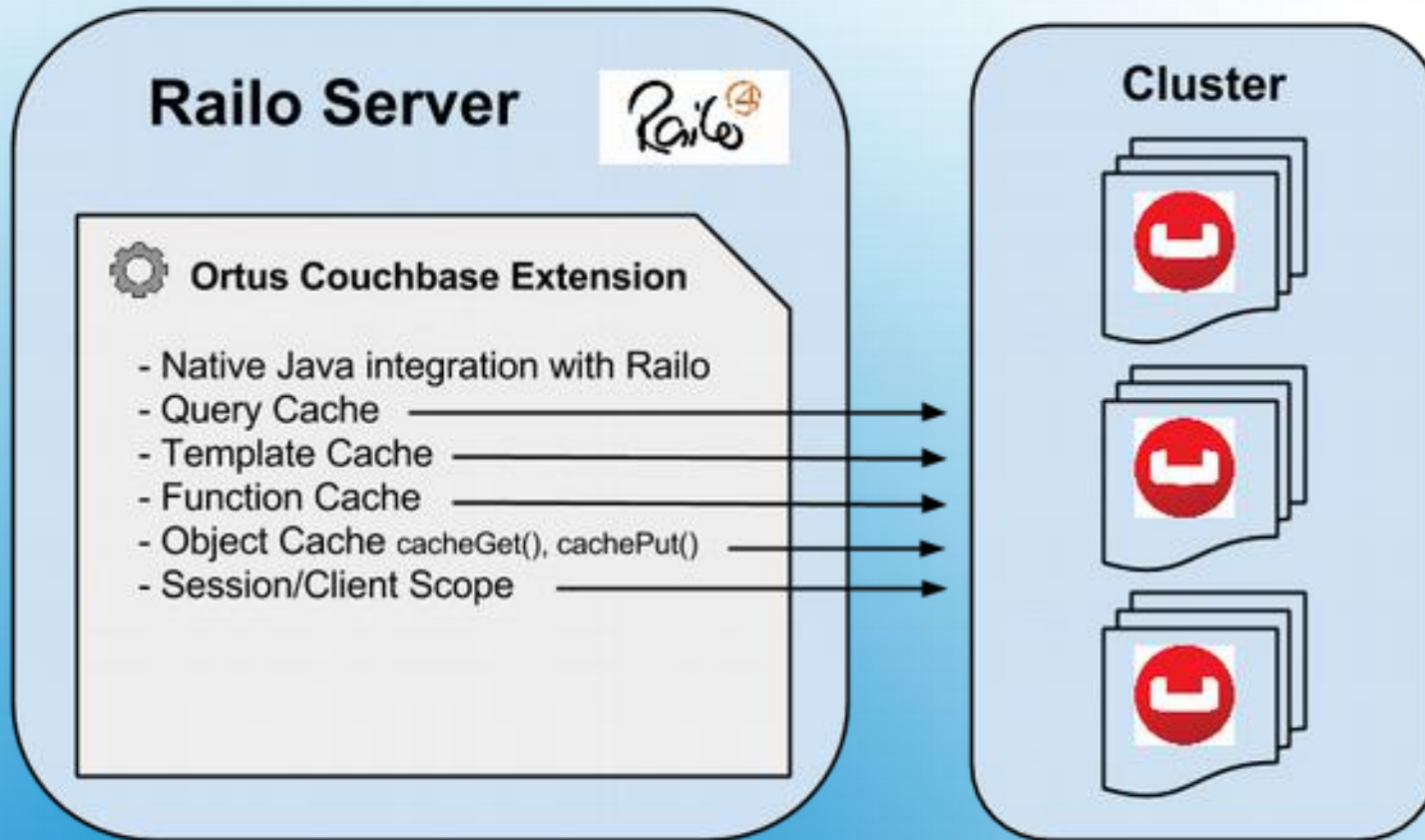


# Ortus Couchbase Railo Extension



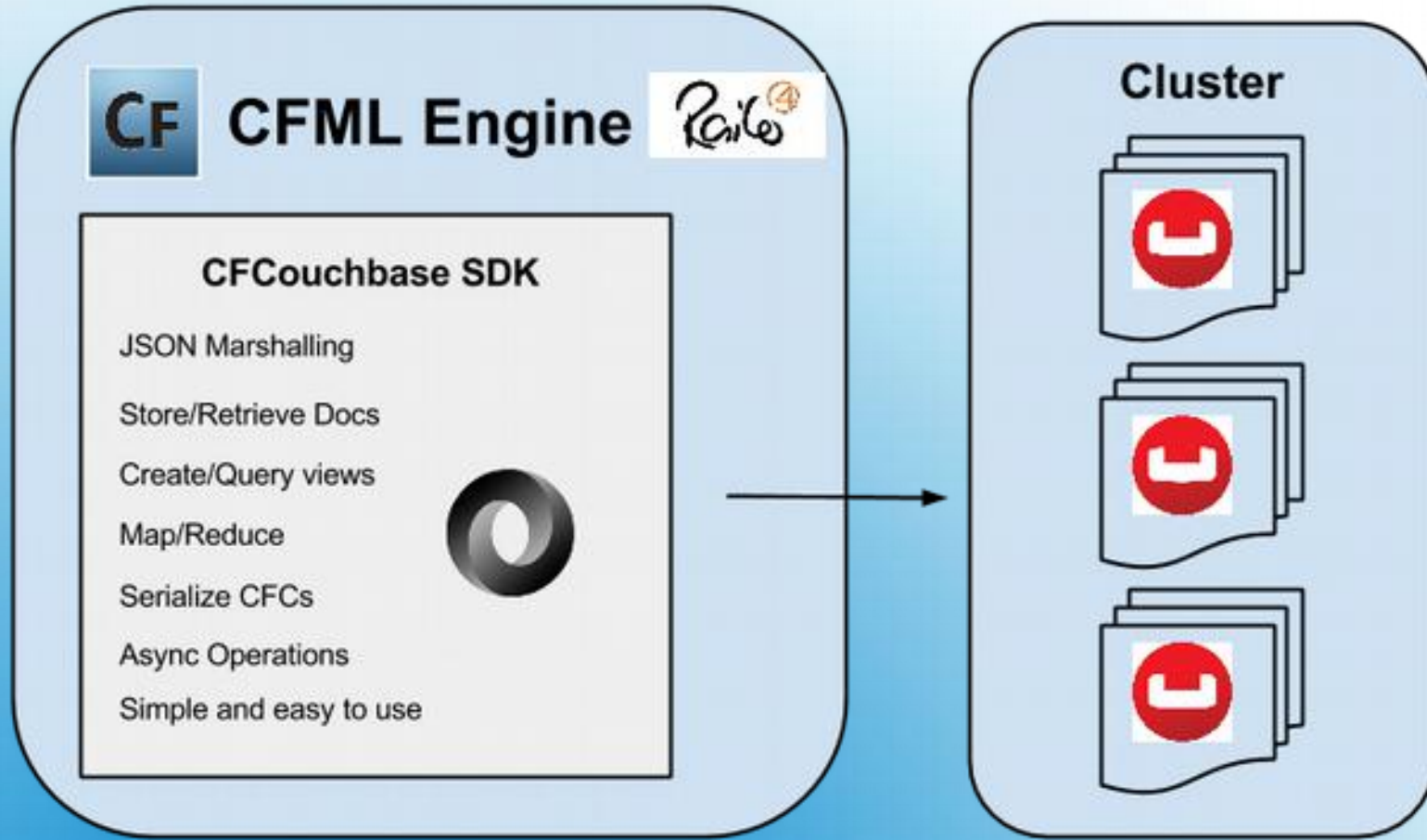
## Couchbase in Railo

# Ortus Couchbase Railo Extension



**Couchbase in Railo**

# CFML CFCouchbase SDK



# Couchbase in CFML

What platform are you using

**Poll**

# Demos!

- Railo Extension
- CFCouchbase SDK

**Couchbase in CFML**



**Railo Extension**

What's the biggest thing keeping you from using NoSQL

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**CFCouchbase SDK**

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[www.github.com/bdw429s/CF Couchbase-demo](https://www.github.com/bdw429s/CF Couchbase-demo)

[www.github.com/Ortus-Solutions/cfcouchbase-sdk](https://www.github.com/Ortus-Solutions/cfcouchbase-sdk)



**Contact Info**