

Java EE distributed

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- Expert Group Member (jcp.org) of Java EE 6, Java EE 7, JPA 2.1, EJB 3.2, CDI 1.1, JMS 2.0 (...)
- Java Champion, (JavaONE) speaker + rockstar, freelancer, consultant and author: >100 articles, 7 German books
- Author: “Real World Java EE Patterns—Rethinking Best Practices” and “Real World Java EE Night Hacks” <http://press.adam-bien.com>
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Real World Java EE Night Hacks

Dissecting the Business Tier

[Iteration One]



X-RAY

Adam Bien

Foreword by James Gosling

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REAL WORLD

JAVA EE PATTERNS

RETHINKING BEST PRACTICES



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realworldpatterns.com



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CAP vs. FLP (Fischer, Lynch and Patterson)

Serialization, Externalization and optimizations

Object oriented vs.
record based persistence

Why home-grown persistence
framework implementation is
challenging (impossible?)

Introduction to Java EE with focus on persistence

JPA usecases, samples and scenarios

Column and row based stores

**What is map-reduce?
Samples and use cases.**

Domain Driven vs. Service Oriented applications

Integration of NoSQL databases

- Cassandra
- Oracle NoSQL Database (KV Store)

Distributed and persistent caches

- Infinispan (JBoss Cache)
- Hazelcast

Principles: ACID, BASE,
Consistent Hashing, Copy On
Write, Lazy / Eager Loading,
Optimistic / Pessimistic Locking

JPA features and caveats

Queries, mapping, and relations

Typesafe vs. "fluid" schemas

Schema and database evolution

Clustering, replication, distribution and invalidation

Caching strategies and implementations

**Normalization vs.
denormalization and
redundancies as best practice**

**Declarative vs.
programmatic queries**

Data binding strategies (with e.g. JavaFX)

Persistence in Web frameworks and rich clients

Performance and memory optimizations

JPA in managed and unmanaged environments

Entity serialization and remoting

Bean Validation and JPA

Unit- and Integration Testing with and without mocks

Persistence Patterns

Data Access Object

Data Transfer Object

Lazy and eager loading

Interesting, but
proprietary vendor
extensions

Thanks && see you:

Bootstrap, Effective, Architecture and: Java EE 7
Delta Workshop, July 22-26th, 2013

Java Persistence, November 21st, 2013

Thank You!

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