JavaEE architectures

I'm working as Java EE/SE developer, consultant, sometimes author, speaker and trainer with Java since 1995...

...and still really enjoying it!

Java Programming Language rocks!

airhacks.io

adam-bien.com

press.adam-bien.com

Real World Java EE Night Hacks

Dissecting the Business Tier

[Iteration One]

CDI REST JPA2 JMX

EJB 3.1 JAX-RS Maven 3 Java EE

ScalaTest Hudson DevOps BASE

Arquillian JUnit CI Stress Test

X-RAY

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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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Understanding CAP in Java EE context

CAP vs. FLP (Fischer, Lynch and Paterson)

In an asynchronous network where messages may be delayed but not lost, there is no consensus algorithm that is guaranteed to terminate in every execution for all starting conditions, if at least one node may fail-stop.

Hardware Costs

Who needs 24*7?

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BASE vs. ACID, or how to start a project

Clear Code

Deprecated J2EE Patterns

Core J2EE Patterns, 2nd Edition
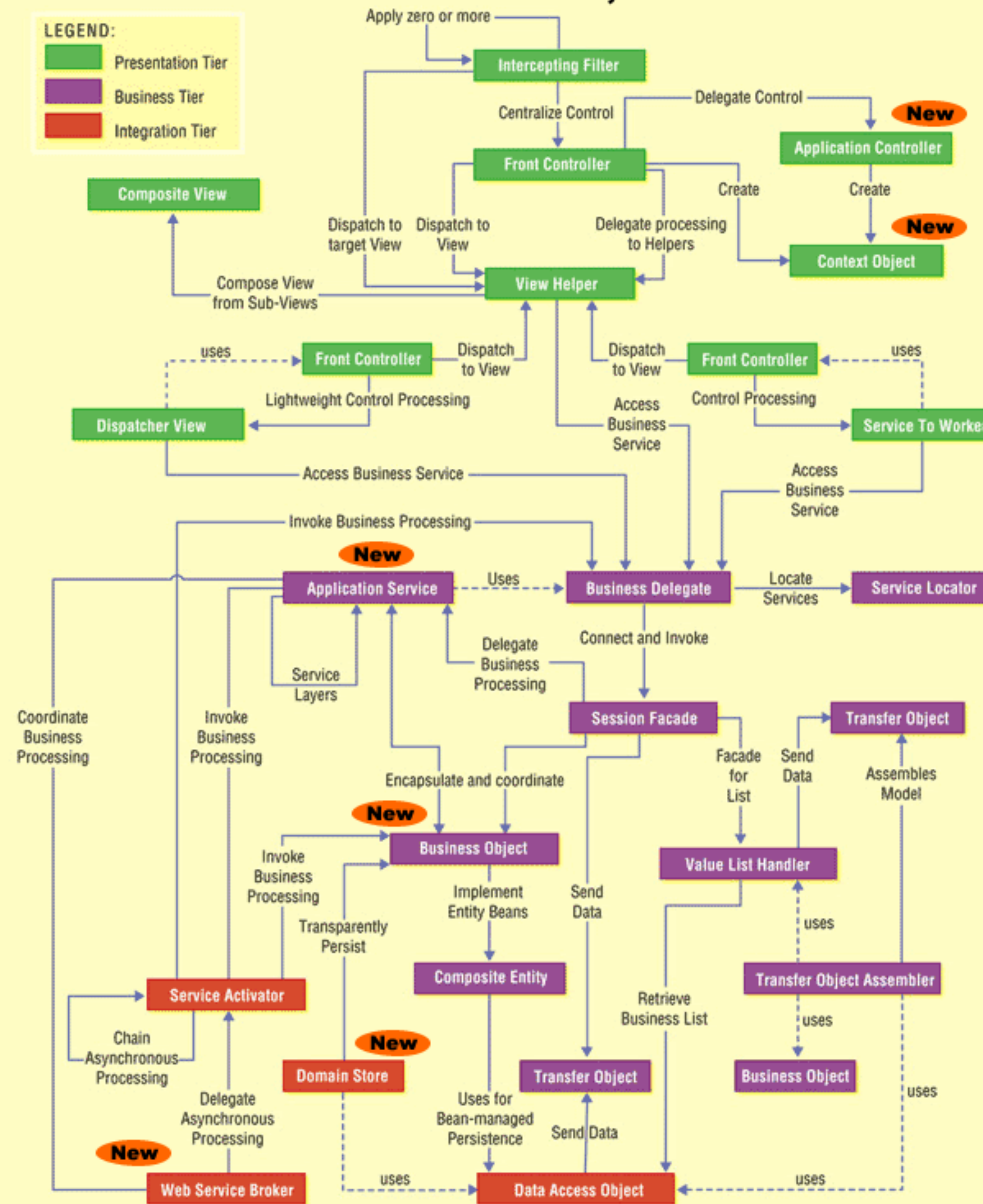
GoF Patterns

Factory, Abstract Factory, Singleton, Builder, Prototype, Adapter, Bridge, Decorator, Facade, Flyweight, Composite, Proxy, Template, Observer, Visitor, Command, Strategy, State, Chain of Responsibility

Documentation and Test

Cargo Cult?

"Cargo cult programming is a style of computer programming characterized by the ritual inclusion of code or program structures that serve no real purpose.”

[http://en.wikipedia.org/wiki/Cargo_cult_programming]

Conway's Law

Parkinson's Law of Triviality

Deployment Strategies

- Blue-Green Deployment

- Hot Deployment

- Virtualization

- Containers

GRASP

- High Cohesion, Minimal Coupling

- Protected Variations

- Information Expert

- Polymorphism

- Pure Fabrication

Immutable Infrastructure

Reactive Programming

Pragmatic modularization of Java EE applications

Microservices

Structuring

- The Vision

- Cohesion <-> Coupling

- Essential Entities and Business Components

- "Maximal Cohesion, Minimal Coupling"

Command Query Responsibility Segregation (CQRS)

"CQRS states that every method should either be a command that performs an action, or a query that returns data to the caller, but not both.

In other words, asking a question should not change the answer."

[http://en.wikipedia.org/wiki/Command–query_separation]

Event Sourcing

"Event Sourcing ensures that all changes to application state are stored as a sequence of events. Not just can we query these events, we can also use the event log to reconstruct past states, and as a foundation to automatically adjust the state to cope with retroactive changes."

[http://martinfowler.com/eaaDev/EventSourcing.html]

Designing plugins, templates and hooks

Caveats of asynchronous applications

RESTful architectures vs. SOAP

Service governance and versioning

- API Versioning

- Dealing with extensions

- (In)Compatiblities

- SCM

Stateful vs. stateless Java EE architectures

- Where is the state?

- What about the scalability?

MoM and Java EE with JMS

- API Compatibility

- Deliver Once And Only Once

- Persistent Queues / Durable Subscribers

- Poisoned Messages

Logging, errorhandling

- Who needs logs?

- Error classification

- Audits and traces

Management and monitoring

- JMX, REST
- "Business monitoring"
- Automated setup and deployment

Continuous Integration and Continuous Deployment

Introduction to clustering, shared nothing and grid architectures

Integration of legacy
resources with and without
JCA 1.6: code walk-throughs

Thanks && see you:

March 2015:
Java EE User Interfaces,
Java EE 7 and HTML 5

April-July 2015:
Impact on Java 8 on Java EE
Java EE Testing, CI and Software Quality
Microservices

Thank You!

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