



CDI: The programming model of Java EE

Pete Muir (@plmuir)

Principal Software Engineer
Red Hat, Inc.

June 2011

Agenda

Introduction

Demo & Tech Deep Dive

Future Directions

Conclusion



Java EE 6: Goals

- Extensibility
 - Allow more components to be standalone (EJB 3.1)
- Profiles
 - Subsets of “full” EE platform
 - Web Profile
- Pruning
 - CMP, JAX-RPC, JAXR, JSR-88 are “pruned” in EE6
- Technology Improvements



Web Profile

•Persistence



- JPA 2.0
- JTA

•Component model



- EJB 3.1 Lite
- Bean Validation
- CDI (JSR-299)

•Presentation



- JSF 2.0
- Servlet 3.0



Java EE 6: Newcomers

- Managed Beans (part of JSR-316)
- Contexts and Dependency Injection - JSR-299
- Bean Validation - JSR-303
- JAX-RS (RESTful Web Services) - JSR-311



Java EE 6: Notable Updates

- Servlet 3.0

- Easier configuration

- JPA 2.0

- Type-safe Criteria API
- Extra mappings

- EJB 3.1

- JSF 2

- Ajax
- Easy component creation
- Bookmarkable URLs
- Templating



Agenda

Introduction

Demo & Tech Deep Dive

Future Directions

Conclusion



Agenda

Introduction

Demo & Tech Deep Dive

Future Directions

Conclusion



Java EE 7

- Improve support for SaaS and PaaS
 - Improvements to contributing specs
 - Improvements to platform security
 - Descriptor controls for PaaS/SaaS
- HTML5/WebSockets support
- Build on Java 7 SE
- Modularity



Java EE 7

- JMS 2.0
 - Focus on ease of use
- CDI 1.1
- EJB 3.2
 - Expand EJB services to all managed beans
- JAX-RS 2.0
- JSF 2.?



CDI 1.1

- Enhance existing spec
 - No large issues found in real life usage
- Ordering and enablement of beans, interceptors and decorators
- Context lifecycle management
- Embedded mode



CDI 1.1

- Inclusion of @Unwraps from Seam Solder
- More events
 - Servlet
 - Application lifecycle
- Multi-tenant support in contexts
- Scanning control



CDI 1.1

- Community sponsored issues
- TCK built using Arquillian



CDI 1.1

Join in!

- Open development - clone <http://github.com/pmuir/cdi>
- Open discussion - join cdi-dev@lists.jboss.org
- Open roadmap - look at <https://issues.jboss.org/browse/CDI>



Agenda

Introduction

Demo & Tech Deep Dive

Future Directions

Conclusion



The EE 6 Story

- Start simple with managed beans
- Add in persistence and validation
- Add in EJB services like pooling, declarative TXs, timers to provide “enterprise features”
- Producers replace factories (loose coupling)
- Add in CDI services like events, decorators to decrease coupling



Availability

- Java EE 6 is final
- JBoss AS 6 is final
 - Implements Java EE web profile
- JBoss AS 7 is in Beta
- Weld 1.1.1 is final





Q & A