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# CDI, the Programming Model of Java EE

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May 2011





#### 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

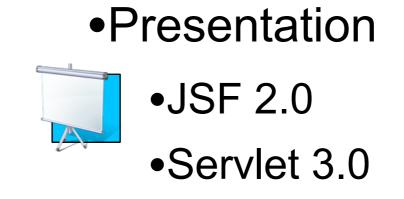




## Web Profile

Persistence





#### Component model



- Bean Validation
- •CDI (JSR-299)





#### 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





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# 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.?





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





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





- Community sponsored issues
- •TCK built using Arquillian







Join in!

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





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# 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





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