Java EE 7 Update

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Overview

• Work going on to define the contents of Java EE 7
• Talked about our plans at JavaOne SF and Devoxx
• Also this month: JavaOne Brazil, JavaOne China
• First two JSRs ready for submission:
  – JAX-RS 2.0
  – JPA 2.1
• Others to follow
JAX-RS 2.0 Features (1)

- **Client API**
  - low-level, builder-based API
  - high-level yet RESTful API
- **Reuse of artifacts on the client**
  - Message body readers/writers, providers in general
- **MVC support (templates)**
  - JSP out of the box, others (StringTemplate, Scalate)
- **Simple server-side asynchrony**
- **Support for hypermedia**
  - link headers, both client and server
JAX-RS 2.0 Features (2)

- Improved CDI integration
  - use @Inject everywhere
- Support for Bean Validation API
- More control for content negotiation ("qs" parameter)
- Other enhancement to usability
  - easier configuration
  - any lambda/SAM-friendly things we can do?
JPA 2.1 Features (1)
O/R Mapping and Modeling

• Converters / custom types
• “Fetch” plans / profiles
• Additional mapping metadata
• User-defined naming strategies
• More flexibility in use of generated values
• Immutable attributes; readonly entities
• More flexible XML descriptors
JPA 2.1 Features (2)
API Enhancements

- Additional event listeners and callbacks
- Improved control of persistence context synchronization
- Support for dynamic definition of persistence unit
- Extension of Metamodel API to ORM
- Methods for dirty detection
- Additional unwrap methods
JPA 2.1 Features (3)
Enhancements to Query Functionality

- Support for stored procedures
- Additional built-in functions
- Database and vendor function invocation support
- Downcasting
- Outer joins with ON conditions
- Update and delete criteria queries
- Mapping between JPQL and criteria queries
- Improved result type mapping for native queries
Schedule

• JAX-RS 2.0:
  – Jan 2011 Expert Group formed
  – Q3 2011 Early Draft
  – Q4 2011 Public Review
  – Q2 2012 Final Release

• JPA 2.1:
  – Jan 2011 Expert Group formed
  – Q3 2011 Early Draft
  – Q1 2012 Public Review
  – Q3 2012 Final Release
Next Steps

• Working on defining full Java EE 7 contents
• Alignment with SE 7/8 important
• Updates to existing APIs:
  – Servlet 3.1, EJB 3.2, JSF 2.2, JAX-WS 2.3, CDI 1.1, DI 1.1, Bean Validation 1.1, …
• JMS 2.0 (!)
• Complete JSR-236
• Looking for some additional, new JSRs
• More info early next year
Questions?