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JavaEE.Next(): Java EE 7, 8, and Beyond

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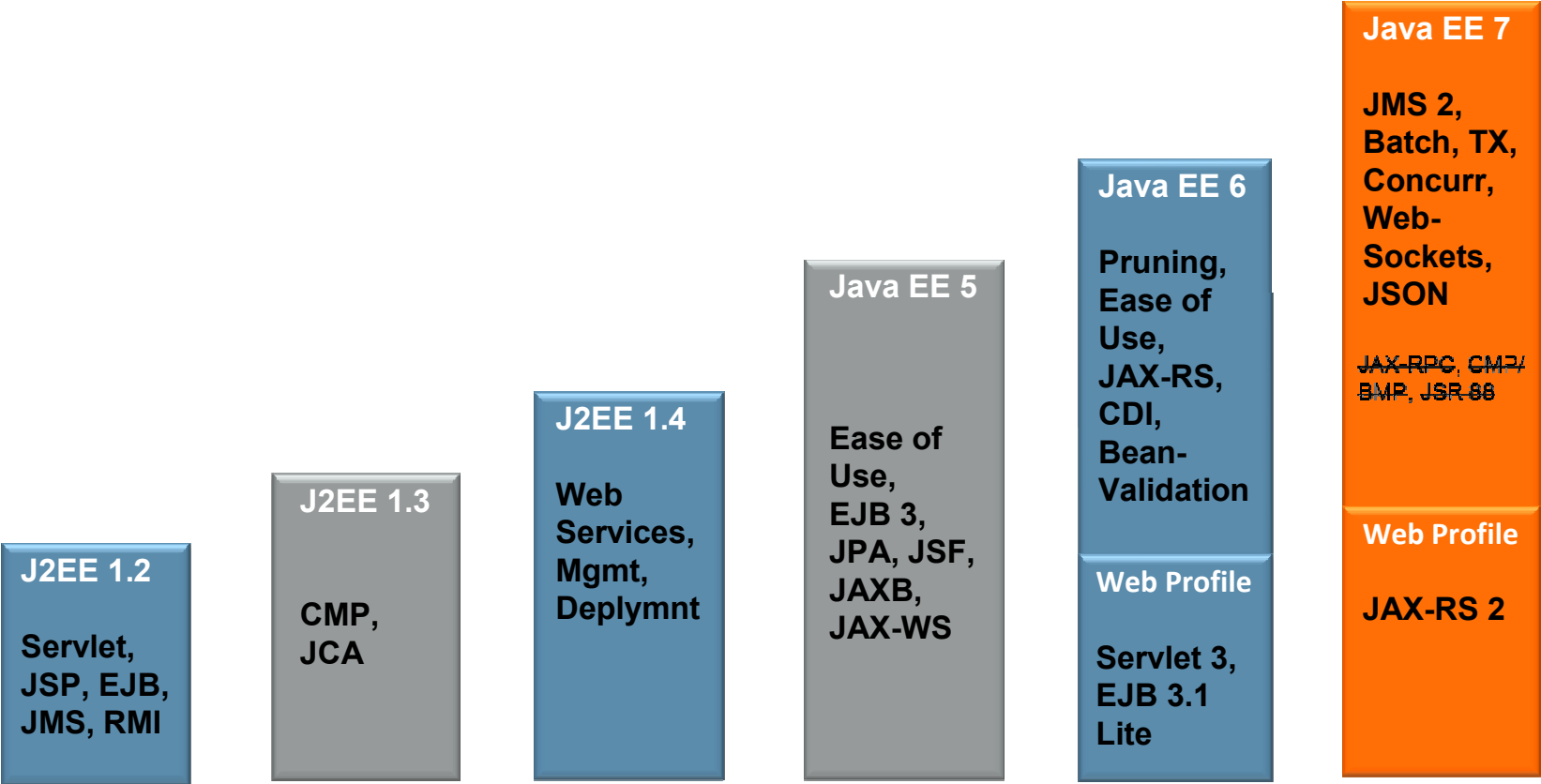
MAKE THE
FUTURE
JAVA



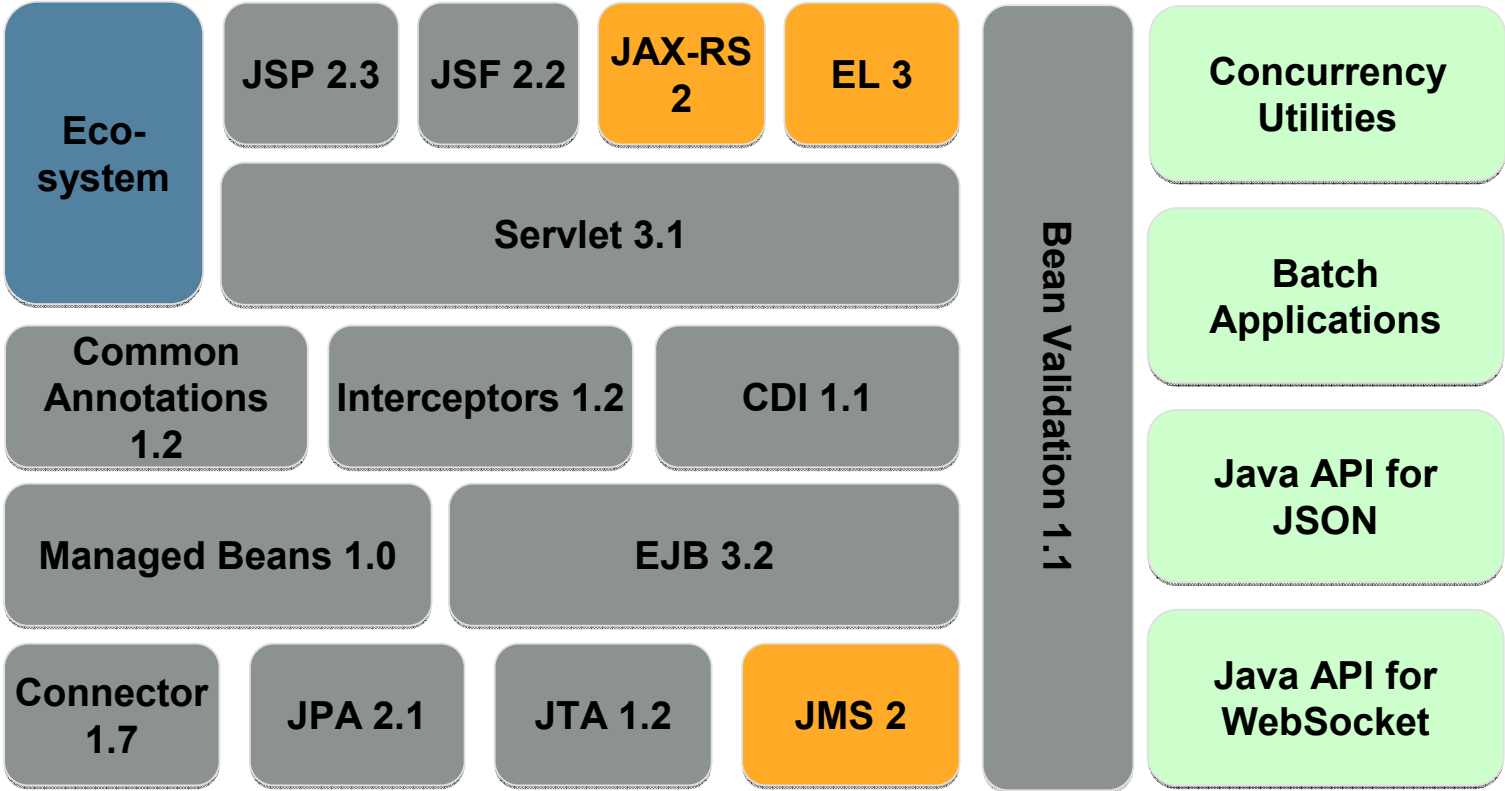
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Java EE Past, Present, & Future



Java EE 7



New Major Release Updated

JMS 2

- Long overdue, well received
- API modernization using dependency injection
- Delivery delay, async send
- MDB alignment
- JMS resource definition, default connection factory

Java API for WebSocket

- WebSocket part of HTML 5
 - Bidirectional asynchronous communication over HTTP
- Higher level API for WebSocket
- Both client and server-side (Java SE and Java EE)
- Both declarative and programmatic

Java API for JSON Processing

- JSON ubiquitous data interchange format on the Web
- API to parse, generate, transform, query JSON
- Object Model and Streaming API -- similar to DOM and StAX
- Binding JSON to Java objects forthcoming

JAX-RS 2

- Client API
- Message Filters & Entity Interceptors
- Asynchronous Processing – Server & Client
- Hypermedia Support
- Content negotiation

JPA 2.1

- Schema generation
- Stored procedures
- Entity Graphs
- Entity converters
- Unsynchronized persistence contexts

JTA 1.2

- Long overdue
- Declarative transactions outside EJB
- Transaction scope - `@TransactionScoped`

JSF 2.2

- HTML5 Support
- @FlowScoped
- @ViewScoped for CDI
- Managed beans deprecated/CDI alignment
- Stateless views
- Resource library contracts
- File upload component
- View actions

Batch Applications for the Java Platform

- Java rise in the enterprise continues
- Batch critical part of enterprise infrastructure
- API for robust batch processing targeted to Java EE, Java SE

Bean Validation 1.1

- Method constraints
- CDI Alignment
- EL integration

Concurrency Utilities for Java EE

- Provides simple, safe API for concurrency in Java EE
- Builds on Java SE concurrency
 - `java.util.concurrent.ExecutorService`
- Relatively low-level API
- Important enabler for Java EE ecosystem

Others

- **Servlet 3.1:** Non-blocking I/O, upgrade to WebSocket, security...
- **CDI 1.1:** Global enablement, @AroundConstruct, @Vetoed...
- **EL 3.0:** Lambda expressions, collections, operators, standalone API...
- **EJB 3.2:** Truncating CMP/BMP...

Java EE in Practice



Cargo Tracker

Applied domain-driven design blueprints for Java EE

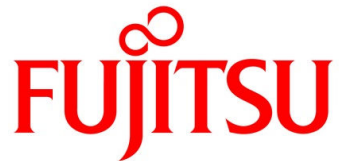
<http://cargotracker.java.net>

Try it Out!

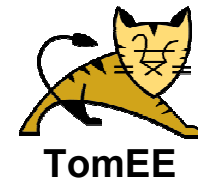
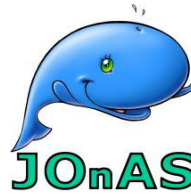


[http://dlc.sun.com.edgesuite.net/glassfish/
4.0.1/promoted/](http://dlc.sun.com.edgesuite.net/glassfish/4.0.1/promoted/)

Java EE 7 Platforms



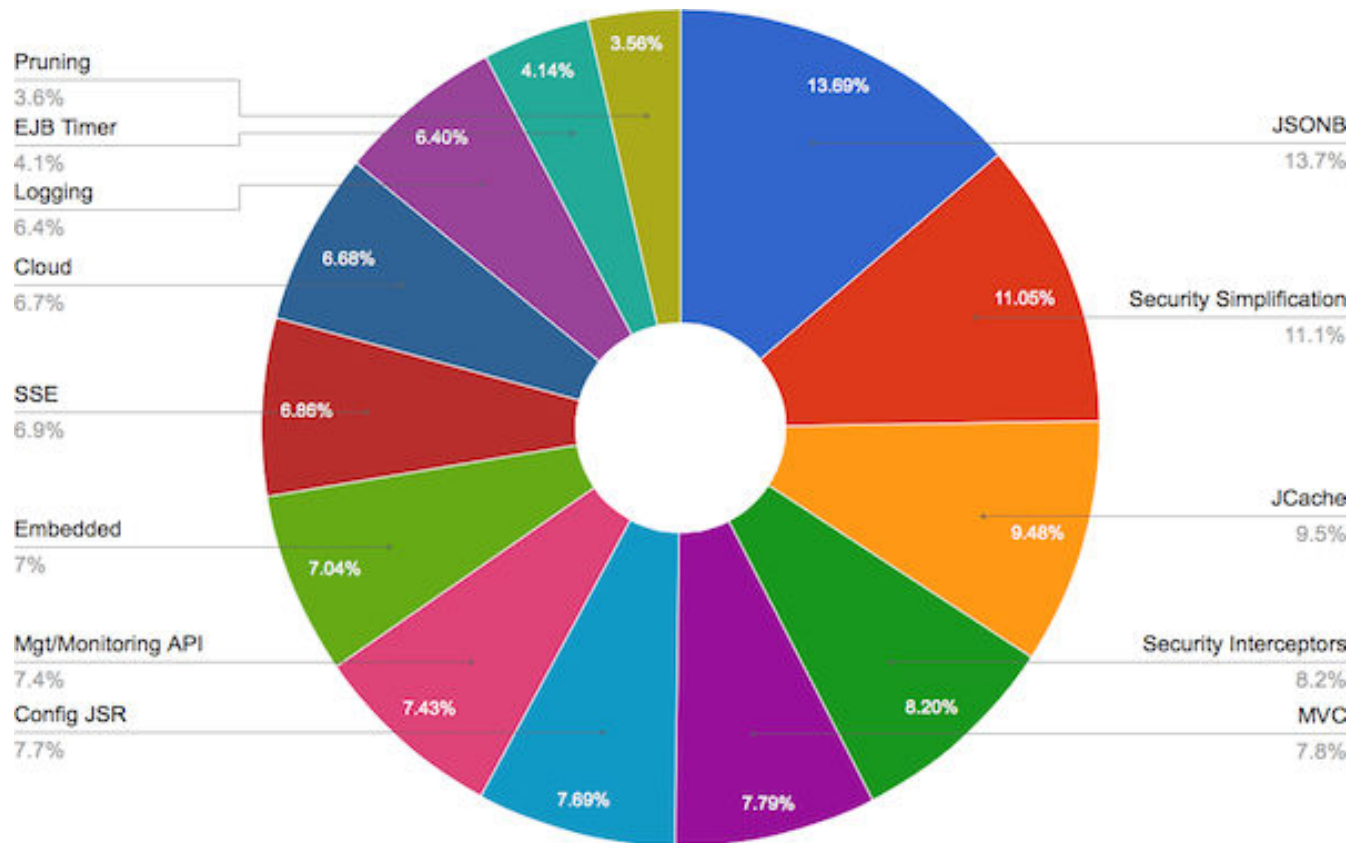
Java EE 6



Java EE 7



Java EE 8 Community Survey



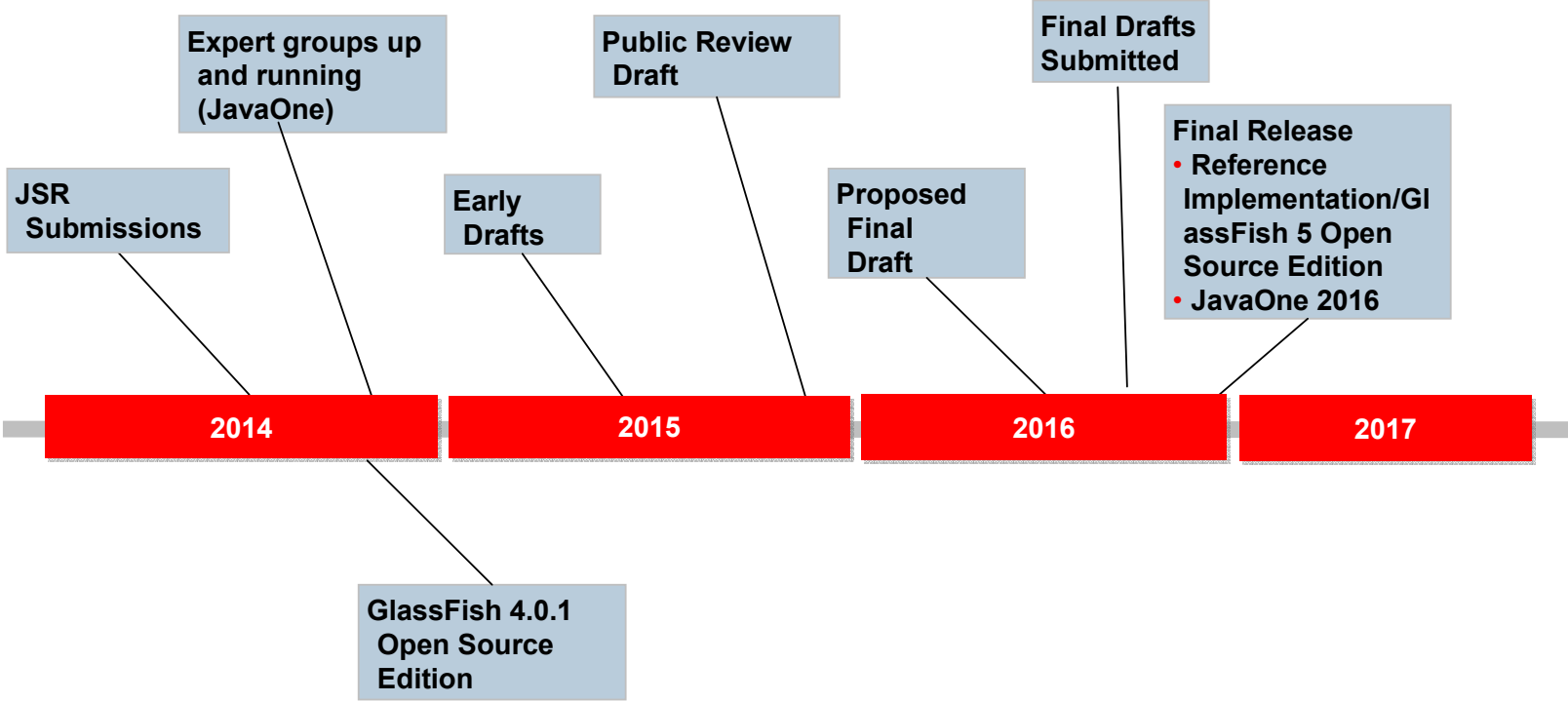
https://blogs.oracle.com/ldemichiel/entry/results_from_the_java_ee

https://java.net/downloads/javae-spec/JavaEE8_Community_Survey_Results.pdf

Java EE 8 Possibilities

- Web Standards/HTML5 Alignment
 - HTTP2, SSE, JSON-B, action-oriented web framework
- Cloud
 - Simple security providers, multitenancy, REST management/monitoring
- CDI Alignment
 - CDI 2, EJB services outside EJB, security interceptors, EJB pruning
- Enterprise
 - JCache, Configuration, JMS
- Java SE 8 alignment

Java EE/GlassFish Roadmap



Adopt-a-JSR for Java EE 8

- Grassroots participation to shape Java EE
- Launched in Java EE 7 time-frame, key community element for Java EE 8
 - 19 Java user groups adopted a Java EE 7 JSR!



<http://adoptajsr.java.net>

Learning More

- Java EE Tutorials
 - <http://docs.oracle.com/javaee/7/tutorial/doc/home.htm>
- Digging Deeper
 - <http://docs.oracle.com/javaee/7/firstcup/doc/home.htm>
 - <https://glassfish.java.net/hol/>
 - <https://java.net/projects/cargotracker/>
- Java EE 7 Transparent Expert Groups
 - <http://javaee-spec.java.net>
- Java EE 7 Reference Implementation
 - <http://glassfish.org>
- The Aquarium
 - <http://blogs.oracle.com/theaquarium>

