GlassFish V3: Webtier Planning

Santa Clara
June 5th, 2008

Goals

- Feature compatibility with GlassFish V2
- Better alignment with Tomcat 6
- Alignment with OSGi

Feature Compatibility with GlassFish V2

- Java EE 5 compatible webtier, including Servlet, JSP, EL, JSTL, and JSF (V3 lite)

- Separate any networking and connection thread pool configuration from <http-service> into new, top-level <grizzly-service> in domain.xml (V3 lite)
  - > New domain.xml DTD
  - > Only web-related configuration (e.g., virtual hosting, HTTP access logging) will remain under <http-service>
  - > Consolidate all existing <xxx-listener> elements into <grizzly-service>

- Restore/Add support for dynamic reconfiguration of web-related and <grizzly-service> configuration (V3 lite)

Feature Compatibility with GlassFish V2 (cont.)

- Monitoring (V3 lite?)
  - > Dependency on monitoring framework
- Avoid double-mapping of HTTP requests (V3 lite)
- Comet
  - > Bundle Grizzly/Comet (V3 lite)
  - > Add support for Atmosphere (abstraction layer on top of Grizzly/Comet, Tomcat/Comet, Jetty/Comet) through UC
  - > Reduced set of APIs?

Better Alignment with Tomcat

- Port outstanding bug fixes from Tomcat codebase (V3 lite)

- Add support for SSI and Webdav (V3 lite)
  - > Already there, but not tested

- Add support for Tomcat Valve (V3 lite)
  - > Valve adaptor? (May not be feasible)
  - > Align Valve interface in GlassFish with Tomcat?
    - >Move from flattened to "stacked" Valve invocation
    - >Valve interface exposed in GlassFish V2

- Out-of-the-box support for latest mod_jk release (V3 lite)
  - > Port Tomcat Connector changes to GlassFish
  - > Make mod_jk available from UC

Better Alignment with Tomcat (cont.)

- Breaking backwards compatibility with Production Web Container (PWC) interfaces unavoidable

- Add support for server.xml
  - > Map server.xml to domain.xml XML bindings
  - > Configure GrizzlyService with basic <connector> settings (e.g., port number, request encoding)
    - >May not be able to support all <connector> settings
  - > Dynamic reconfiguration not supported in this mode
  - > Admin and deployment teams impacted the most!

- Add support for Tomcat-style directory deployments off of a designated root directory (/webapps)
  - > Admin and deployment teams impacted the most!

Alignment with OSGi

- Improved modularization of webcontainer codebase
    - > Remove dependency on com.sun.org.apache.commons (V3 lite)
    - > Binary integrations of Jasper, JSTL, and EL (and eventually Servlet) from corresponding java.net repositories (V3 lite)
    - > Provide implementation of OSGi HttpService

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