



IBM's System z Forum

Make the most of your mainframe.

The new WebSphere Liberty Server
...floats like a butterfly, stings like a bee

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Aug 2012

Liberty Server – the quick facts

- **Composable**
 - Only specify functions you need
- **Lightweight**
 - Small dasd and memory footprint
- **Dynamic**
 - Dynamically detects and acts on changes to the configuration XML
 - Add or update applications by simply replacing the application file war file
- **Fast**
 - starts in a matter of *seconds*
- **Target**
 - The simpler servlet based applications
- **Free for developers**
 - Runs in Eclipse
 - Install and configure your first server in less then 10 minutes
- **For production use**
 - Purchase WAS V8.5

Liberty Profile

Bean validation
Blueprint
Java API for RESTful Web Services
Java Database Connectivity (JDBC)
Java Naming and Directory Interface (JNDI)
Java Persistence API (JPA)
Java Server Faces (JSF)
Java Server Pages (JSP)
JMX
Monitoring
OSGi JPA
Remote connector
Secure Sockets Layer (SSL)
Security
Servlet
Session Persistence
Transaction
Web application bundle (WAB)
z/OS Security (SAF)
z/OS Transactions (RRS)
z/OS Workload Management

Traditional WAS Profile

Everything Liberty has...



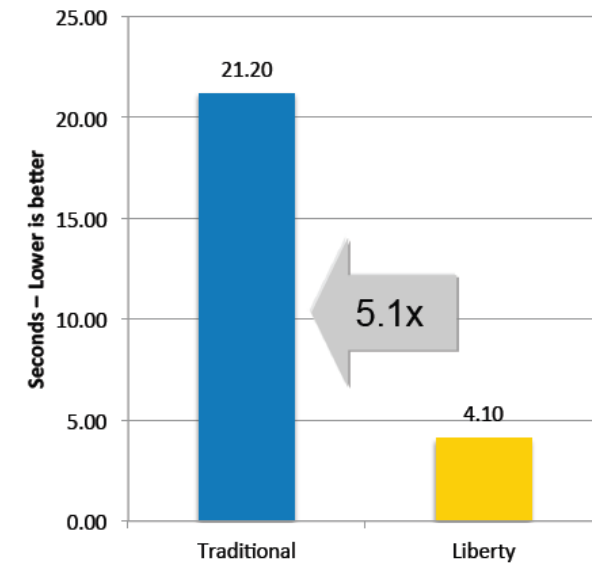
Enterprise Java Beans (EJBs)
Messaging (JMS)
Web Services
Service Component Architecture (SCA)
Java Connector Architecture (JCA)
Clustering
WebSphere Optimized Local Adapters
Administrative Console
WSADMIN scripting
Multi-JVM Server Model
And much more ...



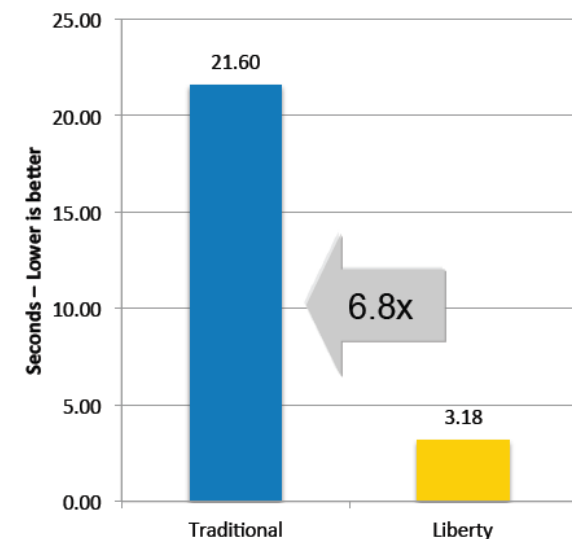
Liberty Server on z/OS

- Works exactly the same on z/OS as on distributed
- Shipped with WAS V8.5 for z/OS
- Can get a Liberty server up and running in 10 minutes
 - Run from a normal userid environment
 - Requires
 - No RACF rules
 - No Started Tasks
- Can run as Started Task
- Copy server configuration from development PC to z/OS
- Java CPU off loadable to zIIP/zAAP

Server Startup – CPU



Server Startup – Elapsed



The z/OS Liberty Angel process

- The *Angel process* allows Liberty profile servers to access authorized services
 - Runs as a Started Task
 - Only need one per LPAR
 - No TCPIP ports
 - No configuration to manage
 - No code level dependency between angel and server
 - Dynamic reload of new version

- Allows Liberty servers to exploit z/OS features that require authorized code
 - Workload management
 - Transaction management
 - SAF (security) interface exploitation
 - Cross-memory communications



Demo Time

- Creating a liberty server in eclipse
- Running snoop application
 - Using security
- Copy server config from Windows to z/OS and run it on z/OS
- Run as STC
- WLM



Why Liberty is good for your company

- **Development**
 - Lets developers have full control over “their” server
 - Dynamic updating of server changes improves their productivity
 - Free to download and use
- **Development to production**
 - Simplifies path to production
 - Works the same on z/OS as where development done
 - Various packaging options
 - Use “server package” to generate an archive that contains a tested, self-contained, pre-configured server instance that includes your application
- **Standard WAS**
 - Applications that are developed and tested on Liberty will run on the standard WAS servers
- **Liberty on z/OS**
 - Inherits z/OS and System z qualities of service
 - Co-location with DB2 improves performance
 - Cost effective
 - Java CPU offload to zIIP/zAAP



More info...

- WebSphere Application Server V8.5 Infocenter
 - http://pic.dhe.ibm.com/infocenter/wasinfo/v8r5/index.jsp?topic=/com.ibm.websphere.zseries.doc/ae/welcome_zseries.html
- Liberty
 - <https://www.ibm.com/developerworks/mydeveloperworks/blogs/wasdev/entry/home?lang=en>
- IBM Techdocs
 - <http://www-03.ibm.com/support/techdocs/atmastr.nsf/Web/TechDocs>
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Questions

Any questions ?





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