

## Glassfish vs Tomcat

By [Roger Keays](#), 31 October 2006

The stack we're using now to build applications for [Sunburnt SEO](#) is so close to being a complete Java EE 5.0 environment that I've been giving some thought to dumping support for the old Servlet 2.4 environment altogether. We're now deploying JPA 1.0, JSF 1.2, EL 1.0, JSTL, Mail and Activation jars which account for over 65% of the download size and are all included in a Java EE 5.0 server.

Then there's the other advantages of Java EE 5.0 like dependency injection, transaction management and hooks for automatic Entity enhancement. Needless to say, I'd be quite happy to upgrade.

Well, what better way to decide about an upgrade than to build a comparison matrix? Lets have a look then - a comparison to Tomcat is all I'm really interested in here, although one of the key features of our software is its multisites capability, so support for virtual hosting is especially important.

Pri	Standard features	Tomcat	Glassfish	Comment
1	Adoption levels	high	low	Glassfish is new
2	Scalable	ok	yes	Glassfish has grizzly
3	Includes Java EE 5 jars	no	yes	
3	Dependency injection	no	yes	
3	Container managed transactions	no	yes	
3	OpenJPA entities enhanced automatically	no	yes	
4	JDBC authentication	yes	yes	In Glassfish 1.0.1
<b>Virtual server features</b>				
1	Support for virtual hosting	yes	yes	
1	Deploy same webapp to multiple hosts	yes	yes	
1	<b>Configure same webapp differently</b>	yes	no	Possible in Tomcat's context.xml or server.xml
2	Per virtual host logging	ok	yes	Tomcat's JULI is a bit buggy [1], [2]
2	Each host has their own authentication realm	yes	no	
3	Each host has their own deployment dir	yes	no	
4	Each host has a jailed manager	yes	no	
4	Each host can listen on a	ok	yes	Tomcat requires an additional <Service>

	different port			containers [3]
5	Each host can listen on an arbitrary combination of ports	no	yes	For Tomcat, a host in one <Service> cannot share ports with a host in another <Service> [4]

The main problem with Glassfish is that its virtual hosting features don't meet our requirements. In Glassfish, webapps don't live in a single virtual host, they are *mapped* to one or more virtual hosts. This is why you can't have a single deployment directory or jailed manager per virtual host. Additionally, it appears that instances of webapps in Glassfish can't be individually configured by setting environment variables in the config file (the <web-app> section is practically empty) and they cannot be mapped to the same context path even if they are deployed to different hosts.

Glassfish looks great, but the problems above are show stopper for us, so we have to stay with Tomcat unless I come up with a way to do these things in Glassfish.

## References

- [1] [http://issues.apache.org/bugzilla/show\\_bug.cgi?id=39627](http://issues.apache.org/bugzilla/show_bug.cgi?id=39627)
- [2] <http://www.nabble.com/readConfiguration%28%29-broken-in-juli-t1755780.html>
- [3] <http://www.nabble.com/forum/ViewPost.jtp?post=7107700&framed=y>
- [4] <http://www.nabble.com/forum/ViewPost.jtp?post=7118636&framed=y>

## Update 2012

Five and half years later and Tomcat is still our server of choice. After trying to upgrade several times to Glassfish we just keep hitting stopper bugs that make me wonder if anybody actually uses it for anything more than "Hello World" applications.

Tomcat might be old and boring, but it is fast, stable and doesn't have buggy features.

## About Roger Keays



Roger Keays is an artist, an engineer, and a student of life. He has no fixed address and has left footprints on 40-something different countries around the world. Roger is addicted to surfing. His other interests are music, psychology, languages, the proper use of semicolons, and finding good food.