

1 Tomcat

1 Tomcat conf
2 conf server.xml
3 server.xml
4 server.xml

```
<Connector connectionTimeout="20000" port="8080" protocol="HTTP/1.1"
redirectPort="8443" uriEncoding="utf-8"/>
port="8080"
```

2 tomcat Connector ()

bio Java I/O IO
maxThreads= 150 //Tomcat
Tomcat 200
400-500 800
minSpareThreads= 25 Tomcat 4
maxThreads
Tomcat
maxSpareThreads= 75 Tomcat
socket 50 Tomcat
acceptCount= 100 -
10 0
connectionTimeout= 20000 20000
0 30000
nio JDK1.4 IO
NIO HTTP
protocol= org.apache.coyote.http11.Http11NioProtocol NIO
HTTP BlockingIO protocol= HTTP/1.1
acceptorThreadCount= 2 NIO
aio(nio.2) JDK7 IO
apr Tomcat JNI Apache HTTP
Tomcat

```

<!--
    <Connector          connectionTimeout="20000"          port="8000"
protocol="HTTP/1.1" redirectPort="8443" uriEncoding="utf-8"/>
    -->
    <!-- protocol          nio          (tomcat8          nio)(apr
        io) -->
    <!-- minProcessors          -->
    <!-- maxProcessors          -->
    <!-- acceptCount          maxProcessors-->
    <!-- enableLookups          true,request.getRemoteHost          DNS
        ip          -->
    <Connector          port="8080"
protocol="org.apache.coyote.http11.Http11NioProtocol"
    connectionTimeout="20000"
    redirectPort="8443"
    maxThreads="500"
    minSpareThreads="100"
    maxSpareThreads="200"
    acceptCount="200"
    enableLookups="false"
/>

maxHttpHeaderSize="8192"    http
    8K
URIEncoding="UTF-8"    Tomcat    URL
disableUploadTimeout="true"
enableLookups="false"--    true
    false
compression="on"
compressionMinSize="10240"    2KB
noCompressionUserAgents="gozilla, traviata"

compressableMimeType="text/html,text/xml,text/javascript,text/css,text/plain"

```

3 Tomcat

```

1    Web    webapps    Tomcat

2    server.xml    <Context>

3    Catalina    :    conf\Catalina\localhost
xml

```

XML

4 tomcat

servlet

webapps web web.xml

xml

servlet servlet

servlet

5.tomcat

1 . tomcat7 conf/server.xml

dns

URIEncoding= UTF-8 : tomcat url

apache mod_encoding

maxSpareThreads :

minSpareThreads : tomcat

enableLookups : Apache HostnameLookups

connectionTimeout : connectionTimeout

maxThreads : maxThreads Tomcat

Tomcat

acceptCount : acceptCount maxThreads

acceptCount

refuse connection

maxProcessors minProcessors : Java

CPU

Windows 1000 Linux 2000

useURIVValidationHack:

tomcat

security

```
if (connector.getUseURIVValidationHack()) {
```

```
String uri = validate(request.getRequestURI());
```

```
if (uri == null) {
```

```
res.setStatus(400);
```

```
res.setMessage("Invalid URI");
```

```
throw new IOException("Invalid URI");
```

```
} else {
```

```
req.requestURI().setString(uri);
```

```
// Redoing the URI decoding
```

```
req.decodedURI().duplicate(req.requestURI());
```

```
req.getURLDecoder().convert(req.decodedURI(), true);
```

useURIVValidationHack false url

enableLookups= false DNS
DNS server.xml enableLookups

disableUploadTimeout Apache keeyalive

Tomcat gzip (HTTP)

compression= on compressionMinSize= 2048

compressableMimeType="text/html,text/xml,text/JavaScript,text/css,text/plain"

HTTP

40% HTML,CSS,javascript , Text
JSP , ASP , Servlet,SHTML CGI PHP ,

1)compression= on

2)compressionMinSize= 2048
2KB

3)noCompressionUserAgents= gozilla, traviata

4)compressableMimeType= text/html,text/xml

8443 https
8443

<!--enable tomcat ssl-->

<Connector port= 8443 protocol= HTTP/1.1

URIEncoding= UTF-8 minSpareThreads= 25 maxSpareThreads=
75

enableLookups= false disableUploadTimeout= true
connectionTimeout= 20000

acceptCount= 300 maxThreads= 300 maxProcessors= 1000
minProcessors= 5

useURIVValidationHack="false"

compression= on compressionMinSize= 2048

compressableMimeType="text/html,text/xml,text/javascript,text/css,text/plain"

SSLEnabled="true"

scheme="https" secure="true"

clientAuth="false" sslProtocol="TLS"

keystoreFile="d:/tomcat2/conf/shnlap93.jks" keystorePass="aaaaaa"

/>

Tomcat

6.

	catalina.sh	JAVA_OPTS	JVM	JAVA_OPTS
JAVA_OPTS="\$JAVA_OPTS		-Xmx3550m	-Xms3550m	-Xss128k -
XX:NewRatio=4		-XX:SurvivorRatio=4"		
-Xmx3550m	JVM	3550M		
-Xms3550m	JVM	3550m		-Xmx
	JVM			
-Xmn2g	2G	=	+	+
		64m		
		Sun		3/8
-Xss128k		JDK5.0		1M
	256K			
			3000~5000	
-XX:NewRatio=4:		Eden	Survivor	
	4			1 4
	1/5			
-XX:SurvivorRatio=4		Eden	Survivor	
4	Survivor	Eden	2:4	Survivor
	1/6			
-XX:MaxPermSize=16m:		16m		
-XX:MaxTenuringThreshold=0				0
	Survivor			Survivor

7.

	catalina.sh	JAVA_OPTS
JAVA_OPTS="\$JAVA_OPTS		-Xmx3550m -Xms3550m -Xss128k -

XX:+UseParallelGC -XX:MaxGCPauseMillis=100"

JDK1.5

-XX:+UseSerialGC:

java -Xmx3550m -Xms3550m -Xmn2g -Xss128k -XX:+UseParallelGC -
XX:MaxGCPauseMillis=100

-XX:+UseParallelGC

-XX:ParallelGCThreads=20

-XX:+UseParallelOldGC

JDK6.0

-XX:MaxGCPauseMillis=100:

JVM

-XX:+UseAdaptiveSizePolicy
Survivor

java -Xmx3550m -Xms3550m -Xmn2g -Xss128k -
XX:+UseConcMarkSweepGC
-XX:+UseConcMarkSweepGC
-XX:NewRatio=4
-Xmn
-XX:+UseParNewGC: CMS
JDK5.0 JVM
-XX:CMSFullGCsBeforeCompaction

GC

-XX:+UseCMSCompactAtFullCollection

8. session

1). Tomcat Session
<http://ajita.iteye.com/blog/1715312> Session
Session

2). Session
memcached Session
memcached-session-manager Tomcat Session

<http://ajita.iteye.com/blog/1716320> MSM Tomcat
 session
 3). session
 session nginx apache Tomcat
 session sticky
<http://ajita.iteye.com/blog/1848665> tomcat session sticky
 nginx session sticky windows

8. JMS

Tomcat JMX
 JVM
 -Dcom.sun.management.jmxremote.ssl=false -
 Dcom.sun.management.jmxremote.authenticate=false
 -Djava.rmi.server.hostname=192.168.71.38 JVM JMS IP
 127.0.0.1
 -Dcom.sun.management.jmxremote.port=1090 JVM JMS
 -Dcom.sun.management.jmxremote.ssl=false JVM JMS
 SSL
 -Dcom.sun.management.jmxremote.authenticate=false JVM JMS

9.

IBM ISA JProfiler probe

10. Tomcat session

Tomcat web
 Lambda Probe Tomcat

11. Tomcat

JDK jconsole
 JDK jvisualvm GC
 Tomcat

12.

JVM

catalina.log

-XX:+PrintGC [GC 118250K->113543K(130112K), 0.0094143 secs] [Full GC 121376K->10414K(130112K), 0.0650971 secs]

-XX:+PrintGCDetails [GC [DefNew: 8614K->781K(9088K), 0.0123035 secs] 118250K->113543K(130112K), 0.0124633 secs] [GC [DefNew: 8614K->8614K(9088K), 0.0000665 secs][Tenured: 112761K->10414K(121024K), 0.0433488 secs] 121376K->10414K(130112K), 0.0436268 secs]

-XX:+PrintGCTimeStamps -XX:+PrintGC PrintGCTimeStamps
11.851: [GC 98328K->93620K(130112K), 0.0082960 secs]

-XX:+PrintGCApplicationConcurrentTime

Application time: 0.5291524

seconds

-XX:+PrintGCApplicationStoppedTime

Total time for which application threads were

stopped: 0.0468229 seconds

-XX:PrintHeapAtGC: GC

-Xloggc:filename:

-verbose:class

-verbose:gc

-verbose:jni native jni

13.Tomcat

Ng:(nginx)

upstream yy_001{

server 10.99.99.99:8080;

server 10.99.99.100:8080;

hash \$**;

healthcheck_enabled;

healthcheck_delay 3000;

healthcheck_timeout 1000;

healthcheck_failcount 2;

healthcheck_send 'GET /healthcheck.html HTTP/1.0' 'Host: wo.com'

'Connection: close';

}

server {

```

include base.conf;
server_name wo.de.tian;
...
location /yy/ {
    proxy_pass http://yy_001;
}

```

dns wo.de.tian ng ip
 ng server yy/ ip
 ->

- 1) 8080 Coyote HTTP/1.1
- Connector
- 2) Connector Service Engine
- Engine
- 3) Engine localhost/yy/index.jsp Host
- 4) Engine localhost Host Host
- Host Engine
- 5) localhost Host /yy/index.jsp Context
- 6) Host /yy Context
- Context
- 7) path= /yy Context /index.jsp mapping table
servlet
- 8) Context URL PATTERN *.jsp servlet JspServlet
- 9) HttpServletRequest HttpServletResponse
- JspServlet doGet doPost
- 10) Context HttpServletResponse Host
- 11) Host HttpServletResponse Engine
- 12) Engine HttpServletResponse Connector
- 13) Connector HttpServletResponse browser

14. Tomcat

Tomcat JSP/Servlet Servlet
 Servlet Servlet Servlet
 Tomcat Tomcat

Tomcat web
 Apache, IIS, Nginx

Tomcat web