

# Tomcat

- description :
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- lastupdate : 2020-03-09

## Tomcat Versions

Apache Tomcat Version	Servlet Spec	Jsp Spec	Web Socket Spec	JDK
Apache Tomcat 9.0.33	4.0	2.3	1.1	JDK 8
Apache Tomcat 8.5.53	3.1	2.3	1.1	JDK 7
Apache Tomcat 8.0.53	3.1	2.3	1.1	JDK 7
Apache Tomcat 7.0.103	3.0	2.2	1.1	JDK 6
Apache Tomcat 6.0.53	2.5	2.1	-	JDK 5
Apache Tomcat 5.5.36	2.4	2.0	-	JDK 1.4
Apache Tomcat 4.1.40	2.3	1.2	-	JDK 1.3
Apache Tomcat 3.3.2	2.2	1.1	-	JDK 1.1

2020.02.24 CVE-2020-1938 Apache Tomcat (Ghostcat)  
 ( ), [CVE-2020-1938](#)

- 1.
2. server.xml, workers.properties

workers.properties

```

worker.list=loadbalancer

worker.loadbalancer.type=lb
worker.loadbalancer.balanced_workers=worker1,worker2
worker.loadbalancer.sticky_session=1

worker.worker1.type=ajp13
worker.worker1.host=127.0.0.1
worker.worker1.port=8020
worker.worker1.lbfactor=1
worker.worker1.secret=${random }
  
```

server.xml



**\*.log**

crontab            SHELL            (\${CATALINA\_HOME}/bin/log\_delete.sh)

```
#!/bin/sh
#30            *.log, *.txt
cd ${CATALINA_HOME}
find ./logs -mtime +30 -name '*.log' -exec rm -f {} \;
find ./logs -mtime +30 -name '*.txt' -exec rm -f {} \;
```

crontab        or LogProc    actctl.sh

```
//            가
$> chmod +x ${CATALINA_HOME}/bin/log_delete.sh
//
$> crontab -l //
$> crontab -e //
0 5 * * * ${CATALINA_HOME}/bin/log_delete.sh #            5
```

logrotate

```
// /etc/logrotate.d            tomcat
$> vi /etc/logrotate.d/tomcat //            가

//
/usr/local/tomcat/*log { // *log            catalina.out 가
    copytruncate
    daily
    rotate 30
    compress
    missingok
    notifempty
    dateext
}

copytruncate :
daily :
compress :            gzip
dateext :
missingok :
rotate 30 :            30
notifempty :
```

**catalina.out**

Tomcat            (logrotate.d)

logrotate.d

Tomcat            catalina.out

[logrotate](#)

## https

```
> https          SSL
>   tomcat
> keystoreFile  keystorePass  가
```

```
<Connector port="8443"
protocol="org.apache.coyote.http11.Http11Protocol"
           maxThreads="150" SSLEnabled="true" scheme="https"
secure="true"
           clientAuth="false" sslProtocol="TLS" keystoreFile="
/sslcert.co.kr_xxxxx.jks    " keystorePass=".jks    "/>
```

[\[Tomcat\] apache-tomcat secretRequired](#)

[\(AJP Connector SSL, secret key, secret password\)](#)

```
'/'          .          ("")          '/'
```

## Apache-tomcat

- [\[CentOS\] apache-tomcat](#) httpd 2.4.x, tomcat-connectors-1.2.46-src
- [\[CentOS7\]](#) (mod\_jk) &
- [Apache-Tomcat-7.0.100](#) server.xml AJP

## Linux

- 

## Windows

/

[\[tomcat\]](#)

```
service.bat install
```

```
prompt
service.bat
```

```
sc delete
```

```
prompt
> >
```

## Optimization, Tuning

- JAVA\_OPTS

```
JAVA_OPTS="-Djava.awt.headless=true -server -Xms512m -Xmx8192m -
XX:NewSize=256m -XX:MaxNewSize=256m -XX:PermSize=256m -XX:MaxPermSize=512m -
XX:+DisableExplicitGC"
```

```
-Xms: Heap
-Xmx: Heap
setenv.sh, setenv.bat
```

### Tomcat8 Heap memory size

```
setenv.bat
```

```
setenv.sh
```

```
export CATALINA_OPTS="$CATALINA_OPTS -Xms512m"
```

## Tip

- [Tomcat](#)

## Troubleshooting

'Creation of SecureRandom instance for session ID generation using [SHA1PRNG] took'

```
: JAVA_OPTS="$JAVA_OPTS -Djava.security.egd=file:/dev/./urandom tomcat
/dev/random
```

(Apache Tomcat 8.5 → ApacheTomcat85)

tomcat7 the basedir environment variable is not defined tomcat7

CATALINA\_HOME, JAVA\_HOME /etc/profile, ~/.bash\_profile, catalina.sh

80 (not root)

```

1~1024 root bind가 가 .
iptables 8080
# iptables -t nat -A PREROUTING -p tcp --dport 80 -j REDIRECT --to-port 8080

```

TOMCAT ROOT가 80

“Catalina”;

```

: Failed to start connector [Connector[AJP/1.3-8009]]
org.apache.catalina.LifecycleException: service.getName(): "Catalina";
    at
org.apache.catalina.connector.Connector.startInternal(Connector.java:1065)
    at org.apache.catalina.util.LifecycleBase.start(LifecycleBase.java:183)
    at
org.apache.catalina.core.StandardService.startInternal(StandardService.java:
460)
    at org.apache.catalina.util.LifecycleBase.start(LifecycleBase.java:183)
    at
org.apache.catalina.core.StandardServer.startInternal(StandardServer.java:74
4)
    at org.apache.catalina.util.LifecycleBase.start(LifecycleBase.java:183)
    at org.apache.catalina.startup.Catalina.start(Catalina.java:712)
    at sun.reflect.NativeMethodAccessorImpl.invoke0(Native Method)
    at
sun.reflect.NativeMethodAccessorImpl.invoke(NativeMethodAccessorImpl.java:57
)
    at
sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl
.java:43)
    at java.lang.reflect.Method.invoke(Method.java:606)
    at org.apache.catalina.startup.Bootstrap.start(Bootstrap.java:294)
    at org.apache.catalina.startup.Bootstrap.main(Bootstrap.java:428)
Caused by: java.lang.IllegalArgumentException: AJP
secretRequired="true" ""
    at
org.apache.coyote.ajp.AbstractAjpProtocol.start(AbstractAjpProtocol.java:211
)
    at
org.apache.catalina.connector.Connector.startInternal(Connector.java:1058)
... 12 more

```

: server.xml Connector secretRequired="false" 가

```
<Connector secretRequired="false" connectionTimeout="20000" port="8080" protocol="HTTP/1.1" redirectPort="8443"/>
```

Invalid byte tag in constant pool: 19

:

```
Tomcat 9.0.x : 9.0.0.M18  
Tomcat 8.5.x : 8.5.12  
Tomcat 8.0.x : 8.0.42  
Tomcat 7.0.x : 7.0.76
```

<https://avaiable.tistory.com/261>

- [hot deploy](#)

## Ref

- [Apache Tomcat Versions](#)
- 
- [+ server.xml](#)

[tomcat](#)

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