

# Apache 集成 tomcat proxy 配置

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## 修改 httpd.conf 配置文件

1. 去掉以下内容的#号注释: (linux 环境下这步操作省略)

```
LoadModule proxy_module modules/mod_proxy.so
LoadModule proxy_ajp_module modules/mod_proxy_ajp.so
LoadModule proxy_balancer_module modules/mod_proxy_balancer.so
```

2. 添加以下配置内容, 对应 IP 做相应修改:

```
ProxyPass /balance-manager !
ProxyPass /server-status !
ProxyPass /CASServer ajp://192.168.97.152:7080/CASServer
ProxyPassReverse / balancer://csp_cluster/
```

```
ProxyPass / balancer://csp_cluster/ stickysession=JSESSIONID nofailover=off
<Proxy balancer://csp_cluster>
ProxySet lbmethod=byrequests
BalancerMember ajp://192.168.97.57:6080 loadfactor=5 smax=10 min=10 route=csp57
BalancerMember ajp://192.168.97.58:6080 loadfactor=5 smax=10 min=10 route=csp58
</Proxy>
```

```
<Location /balancer-manager>
SetHandler balancer-manager
Order Deny,Allow
Deny from all
Allow from localhost
</Location>
```

```
<Location /server-status>
SetHandler server-status
Order Deny,Allow
Deny from all
Allow from localhost
</Location>
timeout 1800
```

## 修改对应 tomcat 的 server.xml 文件

如以下内容：

```
<?xml version='1.0' encoding='utf-8'?>
<Server port="7005" shutdown="SHUTDOWN">
  <Listener className="org.apache.catalina.core.AprLifecycleListener" SSLEngine="on" />
  <Listener className="org.apache.catalina.core.JasperListener" />
  <Listener className="org.apache.catalina.mbeans.ServerLifecycleListener" />
  <Listener className="org.apache.catalina.mbeans.GlobalResourcesLifecycleListener" />
  <GlobalNamingResources>
    <Resource name="UserDatabase" auth="Container"
      type="org.apache.catalina.UserDatabase"
      description="User database that can be updated and saved"
      factory="org.apache.catalina.users.MemoryUserDatabaseFactory"
      pathname="conf/tomcat-users.xml" />
  </GlobalNamingResources>
  <Service name="Catalina">
    <Connector port="6080" protocol="AJP/1.3" connectionTimeout="20000"
      redirectPort="8443" maxThreads="2000" minSpareThreads="200" maxSpareThreads="400"
      acceptCount="2000" />

    <Engine name="Catalina" defaultHost="localhost" jvmRoute="csp57">
      <Realm className="org.apache.catalina.realm.UserDatabaseRealm"
        resourceName="UserDatabase"/>
      <Host name="localhost" appBase="webapps"
        unpackWARs="true" autoDeploy="true"
        xmlValidation="false" xmlNamespaceAware="false">
      </Host>
    </Engine>
  </Service>
</Server>
```

其中主要 Engine 节点的 jvmRoute 值与 apache httpd.conf 里配置的对应：

BalancerMember ajp://192.168.97.57:6080 loadfactor=5 smax=10 min=10 route=**csp57**

BalancerMember ajp://192.168.97.58:6080 loadfactor=5 smax=10 min=10 route=**csp58**

只开放 AJP 协议的 Connector 给 apache。

配置完毕后重启服务器，访问。

注：在登入认证的时候会出现如下错误：

...sun.security.validator.ValidatorException: PKIX path building failed...

需要将申请的证书导入到 jre 的 keystore 中，使用如下命令：

```
keytool -import -alias tomcatsso -file " D:\Apache Software Foundation\Apache2.2\conf\server.crt"  
-keystore "D:\java\jdk1.6.0_11\jre\lib\security\cacerts" -storepass changeit
```