

Apache HTTP Server Configuration

Once the Apache HTTP Server is installed, it can be configured to operate as Load Balancer.

- Apply any standard configuration that you want/need (Listen, ServerName, ServerAdmin, ...) if any is needed to make HTTP server operational.
- Copy 'mod_jk-1.2.28-httpd-2.2.3.so' to {ApacheHTTPServerDir}/modules_ and rename it to 'mod_jk.so'. The name might be slightly different depending on OS, see instructions on [download page](#)
- Add the lines below into {ApacheHTTPServerDir}/conf/httpd.conf after all other LoadModule lines:

```
LoadModule jk_module modules/mod_jk.so
# JK/Worker configuration

# Where to find workers.properties
JkWorkersFile conf/workers.properties
# Where to put jk logs
JkLogFile logs/mod_jk.log
# Set the jk log level [debug/error/info]
JkLogLevel info
JkMount /* loadbalancer

# In case you want to be able to monitor JK status
# <Location /jkmanager/>
#     JkMount jkstatus
#     Order deny,allow
#     Deny from all
#     Allow from 127.0.0.1
# </Location>
```

For more info on available options, see http://tomcat.apache.org/connectors-doc/webserver_howto/apache.html

- Copy worker.properties file from {servoyInstall}/application_server/terracotta directory to {ApacheHTTPServerDir}/conf. The default worker.properties file contains the configuration to load balance two Servoy application Servers, running on 2 different machines, both using port 8009.
- Open the copied worker.properties and change the 'worker.servoyX.host' entries to the correct hostnames of the Servoy Application Servers. It is recommended to use port 8009 as well for all workers (default). If more than two Servoy Application Servers need to be load-balanced, add worker.servoyX sections and update **worker.list** and **worker.loadbalancer.balance_workers** lines. For more information on how to tune workers, see <http://tomcat.apache.org/connectors-doc/reference/workers.html>.

It's possibility to monitor and control worker activity by uncommenting the 'jkstatus' related comments in **worker.properties** and **httpd.conf** and accessing {loadBalancerUrl}/jkmanager/. This page will also allow to activate/disable workers. A worker should be added for each Servoy Application Server that will possibly be started in the cluster, even when not planning to have them started all at once. There is no problem if only a part of those Servoy Application Servers are started. Load-balancing will work on servers defined in the **worker.properties** file that are also available. If workers are defined for Servoy Application Servers that are not started, disable them from the jkmanager page in order to avoid delays caused by load-balancer trying to check the availability of these workers.