

## 10.12.11 Configure OpenClinica for Optimum Performance

Under stress tests, OpenClinica 3.1.3 has performed well with the following JVM (Java Virtual Machine) settings:

Edit the `init.d/tomcat` and replace the `JAVA_OPTS` with following:

```
export JAVA_OPTS="$JAVA_OPTS -Xmx1280m -XX:+UseParallelGC -XX:ParallelGCThreads=n -XX:MaxPermSize=180m -XX:+CMSClassUnloadingEnabled"
```

For the setting `-XX:ParallelGCThreads=n`, `n` should be replaced with the # of cores of your CPU as long as the total number of cores are lesser than 8.

The number of cores can be determined by using 'top' command.

Please note that the minimum RAM requirement is 1280 MB of memory for these settings, so the server is expected to have much higher RAM available. The amount of available memory can be determined by using the command `free -m` to give the memory (in MB). The `MaxPermSize` value depends on the number of war files that you are deploying. The web war needs a 180m of PermGen and the ws war needs a 90m of PermGen memory settings.

For the settings to take effect, restart the Tomcat server.

This page is not approved for publication.