**SUMMARY**

A concurrency bug in Tomcat 5-5.5.12.

**DETAILS**

Some details can also be found at: https://bz.apache.org/bugzilla/show\_bug.cgi?id=37529

This bug is due to a data race.

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| Thread1 (ReplicationListener.java) | Thread2 (ReplicationListener.java) |
| protected void stopListening(){  if ( selector != null ) {  try {  selector.close();  } catch ( Exception x ) {  log.error("Unable to close cluster receiver selector.",x);  } finally {  selector = null;  }  }  doListen = false;  } | protected void listen ()  throws Exception  {  if (doListen) {  log.warn("ServerSocketChannel allready started");  return;  }  doListen=true;  ..  while (doListen) { |
| 0-lock | 0-lock |

On my Linux system (Fedore Core 3) running Java 1.4.2\_06, when I configure tomcat to use SimpleTcpCluster, then when I try to shutdown tomcat, the shutdown take a long time to complete and finally stops with an error as show in this log excerpt: 2005-11-15 13:48:44,202 INFO Pausing Coyote HTTP/1.1 on http-8888 2005-11-15 13:48:44,202 INFO Pausing Coyote HTTP/1.1 on http-8444 2005-11-15 13:48:45,205 INFO Stopping service Catalina 2005-11-15 13:48:45,206 INFO Manager [/flexnet] expiring sessions upon shutdown 2005-11-15 13:48:45,781 INFO Stopped ClusterSender at cluster Catalina:type=Cluster,host=localhost with name Catalina:type=ClusterSender,host=localhost 2005-11-15 13:50:50,440 INFO Stopping Coyote HTTP/1.1 on http-8888 2005-11-15 13:50:50,440 INFO Stopping Coyote HTTP/1.1 on http-8444 2005-11-15 13:50:50,448 ERROR Unable to process request in ReplicationListener

java.nio.channels.ClosedSelectorException at sun.nio.ch.SelectorImpl.lockAndDoSelect(SelectorImpl.java:55) at sun.nio.ch.SelectorImpl.select(SelectorImpl.java:70) at org.apache.catalina.cluster.tcp.ReplicationListener.listen(ReplicationListener.java:130) at org.apache.catalina.cluster.tcp.ClusterReceiverBase.run(ClusterReceiverBase.java:394) at java.lang.Thread.run(Thread.java:534) 2005-11-15 13:50:50,472 ERROR Unable to start cluster listener. java.lang.NullPointerException at org.apache.catalina.cluster.tcp.ReplicationListener.listen(ReplicationListener.java:182) at org.apache.catalina.cluster.tcp.ClusterReceiverBase.run(ClusterReceiverBase.java:394) at java.lang.Thread.run(Thread.java:534) Notice the long delay between stopping the ClusterSender and stopping Coyote.