[HBase-7504](https://www.google.com/url?q=https://issues.apache.org/jira/browse/HBASE-7504&sa=D&source=editors&ust=1751363054293789&usg=AOvVaw0MRhs6cK4JaBdwCpN9GmBW)

  -ROOT- may be offline forever after FullGC of RS (Bug; Major)

**(1)  Log information**

**(1.1) Roles in this case**

HMaster  is notifiled by  ZK  to shut down   RegionServer

**(1.2) Symptoms**

Description:

1. FullGC happens on ROOT regionserver.

2. ZK session timeout, master expires the RegionServer and submits to ServerShutdownHandler

3. RegionServer completes the FullGC

4. In the process of ServerShutdownHandler, verifyRootRegionLocation returns true

5. ServerShutdownHandler skips assigning ROOT region

6. RegionServer aborts itself because it receives YouAreDeadException after a RegionServer report

7. ROOT is offline now, and won't be assigned any more unless we restart master

HMaster log:  HMaster calls ServerShutdownHandler to process the RS.

2012-10-31 19:51:39,043 DEBUG org.apache.hadoop.hbase.master.ServerManager: Added=dw88.kgb.sqa.cm4,60020,1351671478752 to dead servers, submitted shutdown handler to be executed, root=true, meta=false

2012-10-31 19:51:39,045 INFO org.apache.hadoop.hbase.master.handler.ServerShutdownHandler: Splitting logs for dw88.kgb.sqa.cm4,60020,1351671478752

2012-10-31 19:51:50,113 INFO org.apache.hadoop.hbase.master.handler.ServerShutdownHandler: Server dw88.kgb.sqa.cm4,60020,1351671478752 was carrying ROOT. Trying to assign.

2012-10-31 19:52:15,939 DEBUG org.apache.hadoop.hbase.master.ServerManager: Server REPORT rejected; currently processing dw88.kgb.sqa.cm4,60020,1351671478752 as dead server

2012-10-31 19:52:15,945 INFO org.apache.hadoop.hbase.master.handler.ServerShutdownHandler: Skipping log splitting for dw88.kgb.sqa.cm4,60020,1351671478752

RegionServer log:  RS finishes full GC and will resume.

2012-10-31 19:52:15,923 WARN org.apache.hadoop.hbase.util.Sleeper: We slept 229128ms instead of 100000ms, this is likely due to a long garbage collecting pause and it's usually bad, see http://hbase.apache.org/book.html#trouble.rs.runtime.zkexpired

After this, RS will send report to HMaster, but receives “YouAreDeadException” and aborts itself. (there will be FATAL log when RS aborts)