

Item 167

git_comments:

git_commits:

1. **summary:** HDFS-7282. Fix intermittent TestShortCircuitCache and TestBlockReaderFactory failures resulting from TemporarySocketDirectory GC (Jinghui Wang via Colin P. McCabe)
message: HDFS-7282. Fix intermittent TestShortCircuitCache and TestBlockReaderFactory failures resulting from TemporarySocketDirectory GC (Jinghui Wang via Colin P. McCabe) (cherry picked from commit 518a7f4af3d8deecabfa0629b16521ce09de459)

github_issues:

github_issues_comments:

github_pulls:

github_pulls_comments:

github_pulls_reviews:

jira_issues:

1. **summary:** Fix intermittent TestShortCircuitCache and TestBlockReaderFactory failures resulting from TemporarySocketDirectory GC
description: TemporarySocketDirectory has finalize method deletes the directory, in TestShortCircuitCache and TestBlockReaderFactory, the TemporarySocketDirectory created are not refereced later in the tests, which can get garbage collected (deleted the dir) before Datanode start up accessing the directory under TemporarySocketDirectory causing FileNotFoundException.

jira_issues_comments:

1. {color:red}-1 overall{color}. Here are the results of testing the latest attachment <http://issues.apache.org/jira/secure/attachment/12676667/HDFS-7282.patch> against trunk revision d71d40a. {color:green}+1 @author{color}. The patch does not contain any @author tags. {color:green}+1 tests included{color}. The patch appears to include 1 new or modified test files. {color:red}-1 javac{color}. The applied patch generated 1283 javac compiler warnings (more than the trunk's current 1270 warnings). {color:green}+1 javadoc{color}. There were no new javadoc warning messages. {color:green}+1 eclipse:eclipse{color}. The patch built with eclipse:eclipse. {color:green}+1 findbugs{color}. The patch does not introduce any new Findbugs (version 2.0.3) warnings. {color:green}+1 release audit{color}. The applied patch does not increase the total number of release audit warnings. {color:red}-1 core tests{color}. The patch failed these unit tests in hadoop-hdfs-project/hadoop-hdfs: org.apache.hadoop.hdfs.server.balancer.TestBalancer The following test timeouts occurred in hadoop-hdfs-project/hadoop-hdfs: org.apaTests org.apache.hadoop.hdfs.tools.TestDFSHTests org.apache.hadoop.hdfs.tools.offlineEdTests orgTests org.apachTests org.apache.hadoop.hdfs.server.namenode.TestMetadataVersionOuTests org.apache.hadoop.hdfs.server.namenode.TestGetImageServlet org.apache.hadoop.hdfs.server.namenode.TTests org.apache.hadoop.hdfs.server.namenode.TestAddBlock org.apache.hadoop.hdfs.server.namenode.snapshot.TestSnapshotDiffReport org.apache.hadoop.hdfs.sTests orTests org.apache.hadoop.hdTests org.Tests org.apache.hadoop.hdfs.server.namenode.metrics.TestTests org.apache.hadoop.hdfs.TestHttpPolicy org.apachTests org.apache.hadoop.hdfs.TestClientProtocolForPipelineRecoverTeTests org.apacTests org.apaTests {color:green}+1 contrib tests{color}. The patch passed contrib unit tests. Test results: <https://builds.apache.org/job/PreCommit-HDFS-Build/8501//testReport/> Javac warnings: <https://builds.apache.org/job/PreCommit-HDFS-Build/8501//artifact/patchprocess/diffJavacWarnings.txt> Console output: <https://builds.apache.org/job/PreCommit-HDFS-Build/8501//console> This message is automatically generated.
2. I like the patch... we should definitely be closing those {{TemporarySocketDirectory}} objects. Sorry if this is a dumb question, but I don't completely understand how you feel the missing closes are leading to

test failures... can you clarify?

3. **body:** Hi Colin, Thanks for taking a look at the patch. We saw the failures when running the UTs with IBM JAVA. In each one of the failed tests, the TemporarySocketDirectory object is initialized, which creates the directory, but the objects are never used/referenced again, so they can potentially get garbage collected and the finalize method is called for the object, which deletes the directory (see code snippet below). In our case, the TemporarySocketDirectory is getting garbage collected before the datanode initializes and causing the FileNotFoundException. `@Override public void close() throws IOException { if (dir != null) { FileUtils.deleteDirectory(dir); dir = null; } } protected void finalize() throws IOException { close(); }`
label: code-design
4. Not having the closes is not the root cause for the failures. The root cause is the TemporarySocketDirectory are not being referenced anywhere in the test. Adding the close method is making sure TemporarySocketDirectory is referenced during the test and it's consistent with some other test cases using TemporarySocketDirectory .
5. bq. Not having the closes is not the root cause for the failures. The root cause is the TemporarySocketDirectory are not being referenced anywhere in the test. Adding the close method is making sure TemporarySocketDirectory is referenced during the test and it's consistent with some other test cases using TemporarySocketDirectory . [edit: it took me a minute or two to figure this out. My first comment was wrong.] OK, I see what's going on. The object may get GC'ed immediately if it's not referenced later. And then the finalizer removes the directory. Ah. Of course. +1 for the patch. I will re-trigger Jenkins since the last run had some issues it seems.
6. {color:red}-1 overall{color}. Here are the results of testing the latest attachment <http://issues.apache.org/jira/secure/attachment/12676667/HDFS-7282.patch> against trunk revision c05b581. {color:green}+1 @author{color}. The patch does not contain any @author tags. {color:green}+1 tests included{color}. The patch appears to include 2 new or modified test files. {color:green}+1 javac{color}. The applied patch does not increase the total number of javac compiler warnings. {color:green}+1 javadoc{color}. There were no new javadoc warning messages. {color:green}+1 eclipse:eclipse{color}. The patch built with eclipse:eclipse. {color:green}+1 findbugs{color}. The patch does not introduce any new Findbugs (version 2.0.3) warnings. {color:green}+1 release audit{color}. The applied patch does not increase the total number of release audit warnings. {color:red}-1 core tests{color}. The following test timeouts occurred in hadoop-hdfs-project/hadoop-hdfs: org.apache.hadoop.hdfs.tools.TestDFSAdminWithHA {color:green}+1 contrib tests{color}. The patch passed contrib unit tests. Test results: <https://builds.apache.org/job/PreCommit-HDFS-Build/8552/testReport/> Console output: <https://builds.apache.org/job/PreCommit-HDFS-Build/8552/console> This message is automatically generated.
7. Test failure not related to the patch.
8. +1. Thanks, Jinghui.
9. FAILURE: Integrated in Hadoop-trunk-Commit #6359 (See [<https://builds.apache.org/job/Hadoop-trunk-Commit/6359/>]) HDFS-7282. Fix intermittent TestShortCircuitCache and TestBlockReaderFactory failures resulting from TemporarySocketDirectory GC (Jinghui Wang via Colin P. McCabe) (cmccabe: rev 518a7f4af3d8deeecabfa0629b16521ce09de459) * hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/TestBlockReaderFactory.java * hadoop-hdfs-project/hadoop-hdfs/CHANGES.txt * hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/shortcircuit/TestShortCircuitCache.java
10. SUCCESS: Integrated in Hadoop-Yarn-trunk #726 (See [<https://builds.apache.org/job/Hadoop-Yarn-trunk/726/>]) HDFS-7282. Fix intermittent TestShortCircuitCache and TestBlockReaderFactory failures resulting from TemporarySocketDirectory GC (Jinghui Wang via Colin P. McCabe) (cmccabe: rev 518a7f4af3d8deeecabfa0629b16521ce09de459) * hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/shortcircuit/TestShortCircuitCache.java * hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/TestBlockReaderFactory.java * hadoop-hdfs-project/hadoop-hdfs/CHANGES.txt
11. FAILURE: Integrated in Hadoop-Mapreduce-trunk #1940 (See [<https://builds.apache.org/job/Hadoop-Mapreduce-trunk/1940/>]) HDFS-7282. Fix intermittent TestShortCircuitCache and TestBlockReaderFactory failures resulting from TemporarySocketDirectory GC (Jinghui Wang via Colin P. McCabe) (cmccabe: rev 518a7f4af3d8deeecabfa0629b16521ce09de459) * hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/shortcircuit/TestShortCircuitCache.java * hadoop-hdfs-project/hadoop-hdfs/CHANGES.txt * hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/TestBlockReaderFactory.java

12. SUCCESS: Integrated in Hadoop-Hdfs-trunk #1915 (See [<https://builds.apache.org/job/Hadoop-Hdfs-trunk/1915/>]) HDFS-7282. Fix intermittent TestShortCircuitCache and TestBlockReaderFactory failures resulting from TemporarySocketDirectory GC (Jinghui Wang via Colin P. McCabe) (cmccabe: rev 518a7f4af3d8deeecabfa0629b16521ce09de459) * hadoop-hdfs-project/hadoop-hdfs/CHANGES.txt * hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/shortcircuit/TestShortCircuitCache.java * hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/TestBlockReaderFactory.java