Hadoop Common / HADOOP-11969

ThreadLocal initialization in several classes is not thread safe

⌄ Details

Type:	🗵 Bug		Status:	**RESOLVED**
Priority:	🔺 Critical		Resolution:	Fixed
Affects Version/s:	None		Fix Version/s:	2.8.0, 3.0.0-alpha1
Component/s:	io			
Labels:	thread-safety			
Target Version/s:	2.8.0			

⌄ Description

Right now, the initialization of hte thread local factories for encoder / decoder in Text are not marked final. This means they end up with a static initializer that is not guaranteed to be finished running before the members are visible.

Under heavy contention, this means during initialization some users will get an NPE:

```
(2015-05-05 08:58:03.974 : solr_server_log.log)
 org.apache.solr.common.SolrException; null:java.lang.NullPointerException
        at org.apache.hadoop.io.Text.decode(Text.java:406)
        at org.apache.hadoop.io.Text.decode(Text.java:389)
        at org.apache.hadoop.io.Text.toString(Text.java:280)
        at org.apache.hadoop.hdfs.protocolPB.PBHelper.convert(PBHelper.java:764)
        at org.apache.hadoop.hdfs.protocol.datatransfer.DataTransferProtoUtil.buildBaseHeader(DataTransferProtoUtil.java:81)
        at
 org.apache.hadoop.hdfs.protocol.datatransfer.DataTransferProtoUtil.buildClientHeader(DataTransferProtoUtil.java:71)
        at org.apache.hadoop.hdfs.protocol.datatransfer.Sender.readBlock(Sender.java:101)
        at org.apache.hadoop.hdfs.RemoteBlockReader2.newBlockReader(RemoteBlockReader2.java:400)
        at org.apache.hadoop.hdfs.BlockReaderFactory.getRemoteBlockReader(BlockReaderFactory.java:785)
        at org.apache.hadoop.hdfs.BlockReaderFactory.getRemoteBlockReaderFromTcp(BlockReaderFactory.java:663)
        at org.apache.hadoop.hdfs.BlockReaderFactory.build(BlockReaderFactory.java:327)
        at org.apache.hadoop.hdfs.DFSInputStream.actualGetFromOneDataNode(DFSInputStream.java:1027)
        at org.apache.hadoop.hdfs.DFSInputStream.fetchBlockByteRange(DFSInputStream.java:974)
        at org.apache.hadoop.hdfs.DFSInputStream.read(DFSInputStream.java:1305)
        at org.apache.hadoop.fs.FSInputStream.readFully(FSInputStream.java:78)
        at org.apache.hadoop.fs.FSDataInputStream.readFully(FSDataInputStream.java:107)
... SNIP...
```

⌄ Attachments

🗎	HADOOP-11969.1.patch	19 kB	14/May/15 14:27
🗎	HADOOP-11969.2.patch	25 kB	14/May/15 18:54
🗎	HADOOP-11969.3.patch	25 kB	14/May/15 19:53
🗎	HADOOP-11969.4.patch	25 kB	14/May/15 22:46
🗎	HADOOP-11969.5.patch	24 kB	19/May/15 18:24

⌄ Activity

↑

⌄ ◯ Sean Busbey added a comment - 14/May/15 13:55

expanded scope since I found the same idiom used in a few other classes.

⌄ ◯ Hadoop QA added a comment - 14/May/15 15:59

❌ **-1 overall**

Vote	Subsystem	Runtime	Comment
0	pre-patch	14m 47s	Pre-patch trunk compilation is healthy.
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	tests included	0m 0s	The patch appears to include 3 new or modified test files.
+1	javac	7m 40s	There were no new javac warning messages.
+1	javadoc	9m 45s	There were no new javadoc warning messages.
+1	release audit	0m 22s	The applied patch does not increase the total number of release audit warnings.
-1	checkstyle	2m 17s	The applied patch generated 2 new checkstyle issues (total was 138, now 135).
-1	checkstyle	2m 42s	The applied patch generated 1 new checkstyle issues (total was 9, now 9).
-1	checkstyle	3m 5s	The applied patch generated 3 new checkstyle issues (total was 73, now 75).
-1	checkstyle	3m 32s	The applied patch generated 8 new checkstyle issues (total was 31, now 39).
+1	whitespace	0m 0s	The patch has no lines that end in whitespace.
+1	install	1m 34s	mvn install still works.
+1	eclipse:eclipse	0m 34s	The patch built with eclipse:eclipse.
+1	findbugs	5m 26s	The patch does not introduce any new Findbugs (version 2.0.3) warnings.
+1	common tests	25m 16s	Tests passed in hadoop-common.
+1	common tests	1m 38s	Tests passed in hadoop-kms.
+1	mapreduce tests	2m 4s	Tests passed in hadoop-mapreduce-client-core.
+1	tools/hadoop tests	6m 13s	Tests passed in hadoop-distcp.
+1	tools/hadoop tests	6m 22s	Tests passed in hadoop-streaming.
-1	hdfs tests	3m 19s	Tests failed in hadoop-hdfs-httpfs.
		88m 35s	

Reason	Tests
Failed unit tests	hadoop.fs.http.client.TestHttpFSFWithSWebhdfsFileSystem
	hadoop.fs.http.client.TestHttpFSFWithWebhdfsFileSystem
	hadoop.fs.http.client.TestHttpFSWithHttpFSFileSystem

Subsystem	Report/Notes
Patch URL	http://issues.apache.org/jira/secure/attachment/12732866/HADOOP-11969.1.patch
Optional Tests	javadoc javac unit findbugs checkstyle
git revision	trunk / def9136
checkstyle	https://builds.apache.org/job/PreCommit-HADOOP-Build/6689/artifact/patchprocess/diffcheckstylehadoop-common.txt https://builds.apache.org/job/PreCommit-HADOOP-Build/6689/artifact/patchprocess/diffcheckstylehadoop-hdfs-httpfs.txt https://builds.apache.org/job/PreCommit-HADOOP-Build/6689/artifact/patchprocess/diffcheckstylehadoop-mapreduce-client-core.txt https://builds.apache.org/job/PreCommit-HADOOP-Build/6689/artifact/patchprocess/diffcheckstylehadoop-streaming.txt
hadoop-common test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6689/artifact/patchprocess/testrun_hadoop-common.txt
hadoop-kms test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6689/artifact/patchprocess/testrun_hadoop-kms.txt
hadoop-mapreduce-	https://builds.apache.org/job/PreCommit-HADOOP-Build/6689/artifact/patchprocess/testrun_hadoop-mapreduce-client-core.txt

client-core test log	
hadoop-distcp test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6689/artifact/patchprocess/testrun_hadoop-distcp.txt
hadoop-streaming test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6689/artifact/patchprocess/testrun_hadoop-streaming.txt
hadoop-hdfs-httpfs test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6689/artifact/patchprocess/testrun_hadoop-hdfs-httpfs.txt
Test Results	https://builds.apache.org/job/PreCommit-HADOOP-Build/6689/testReport/
Java	1.7.0_55
uname	Linux asf903.gq1.ygridcore.net 3.13.0-36-lowlatency #63-Ubuntu SMP PREEMPT Wed Sep 3 21:56:12 UTC 2014 x86_64 x86_64 x86_64 GNU/Linux
Console output	https://builds.apache.org/job/PreCommit-HADOOP-Build/6689/console

This message was automatically generated.

Sean Busbey added a comment - 14/May/15 18:56

-02

- addresses checkstyle failures
- fixes some related pre-existing javac warnings

Hadoop QA added a comment - 14/May/15 19:23

❌ -1 overall

Vote	Subsystem	Runtime	Comment
0	pre-patch	14m 46s	Pre-patch trunk compilation is healthy.
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	tests included	0m 0s	The patch appears to include 3 new or modified test files.
-1	javac	6m 38s	The patch appears to cause the build to fail.

Subsystem	Report/Notes
Patch URL	http://issues.apache.org/jira/secure/attachment/12732925/HADOOP-11969.2.patch
Optional Tests	javadoc javac unit findbugs checkstyle
git revision	trunk / 15ccd96
Console output	https://builds.apache.org/job/PreCommit-HADOOP-Build/6691/console

This message was automatically generated.

Sean Busbey added a comment - 14/May/15 19:53

-03

- for real this time.

Hadoop QA added a comment - 14/May/15 21:25

❌ -1 overall

Vote	Subsystem	Runtime	Comment
0	pre-patch	14m 44s	Pre-patch trunk compilation is healthy.
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	tests included	0m 0s	The patch appears to include 3 new or modified test files.
+1	javac	7m 32s	There were no new javac warning messages.
+1	javadoc	9m 38s	There were no new javadoc warning messages.
+1	release audit	0m 23s	The applied patch does not increase the total number of release audit warnings.
+1	checkstyle	3m 30s	There were no new checkstyle issues.
-1	whitespace	0m 1s	The patch has 1 line(s) that end in whitespace. Use git apply --whitespace=fix.
+1	install	1m 32s	mvn install still works.
+1	eclipse:eclipse	0m 33s	The patch built with eclipse:eclipse.
+1	findbugs	5m 23s	The patch does not introduce any new Findbugs (version 2.0.3) warnings.
+1	common tests	22m 17s	Tests passed in hadoop-common.
+1	common tests	1m 39s	Tests passed in hadoop-kms.
+1	mapreduce tests	1m 35s	Tests passed in hadoop-mapreduce-client-core.
+1	tools/hadoop tests	6m 7s	Tests passed in hadoop-distcp.
+1	tools/hadoop tests	6m 9s	Tests passed in hadoop-streaming.
-1	hdfs tests	3m 18s	Tests failed in hadoop-hdfs-httpfs.
		84m 26s	

Reason	Tests
Failed unit tests	hadoop.fs.http.client.TestHttpFSWithHttpFSFileSystem
	hadoop.fs.http.client.TestHttpFSFWithSWebhdfsFileSystem
	hadoop.fs.http.client.TestHttpFSFWithWebhdfsFileSystem

Subsystem	Report/Notes
Patch URL	http://issues.apache.org/jira/secure/attachment/12732940/HADOOP-11969.3.patch
Optional Tests	javadoc javac unit findbugs checkstyle
git revision	trunk / 15ccd96
whitespace	https://builds.apache.org/job/PreCommit-HADOOP-Build/6694/artifact/patchprocess/whitespace.txt
hadoop-common test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6694/artifact/patchprocess/testrun_hadoop-common.txt
hadoop-kms test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6694/artifact/patchprocess/testrun_hadoop-kms.txt
hadoop-mapreduce-client-core test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6694/artifact/patchprocess/testrun_hadoop-mapreduce-client-core.txt
hadoop-distcp test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6694/artifact/patchprocess/testrun_hadoop-distcp.txt
hadoop-streaming test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6694/artifact/patchprocess/testrun_hadoop-streaming.txt
hadoop-hdfs-httpfs test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6694/artifact/patchprocess/testrun_hadoop-hdfs-httpfs.txt
Test Results	https://builds.apache.org/job/PreCommit-HADOOP-Build/6694/testReport/

Java	1.7.0_55
uname	Linux asf902.gq1.ygridcore.net 3.13.0-36-lowlatency #63-Ubuntu SMP PREEMPT Wed Sep 3 21:56:12 UTC 2014 x86_64 x86_64 x86_64 GNU/Linux
Console output	https://builds.apache.org/job/PreCommit-HADOOP-Build/6694/console

This message was automatically generated.

⌄ ◯ Sean Busbey added a comment - 14/May/15 22:46

-04

- fixes whitespace (which was adjacent to an added line.)

⌄ ◯ Hadoop QA added a comment - 15/May/15 00:51

❌ -1 overall

Vote	Subsystem	Runtime	Comment
0	pre-patch	14m 39s	Pre-patch trunk compilation is healthy.
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	tests included	0m 0s	The patch appears to include 3 new or modified test files.
+1	javac	7m 33s	There were no new javac warning messages.
+1	javadoc	9m 36s	There were no new javadoc warning messages.
+1	release audit	0m 23s	The applied patch does not increase the total number of release audit warnings.
+1	checkstyle	3m 31s	There were no new checkstyle issues.
+1	whitespace	0m 1s	The patch has no lines that end in whitespace.
+1	install	1m 35s	mvn install still works.
+1	eclipse:eclipse	0m 33s	The patch built with eclipse:eclipse.
+1	findbugs	5m 23s	The patch does not introduce any new Findbugs (version 2.0.3) warnings.
+1	common tests	23m 44s	Tests passed in hadoop-common.
+1	common tests	1m 37s	Tests passed in hadoop-kms.
+1	mapreduce tests	1m 34s	Tests passed in hadoop-mapreduce-client-core.
+1	tools/hadoop tests	6m 6s	Tests passed in hadoop-distcp.
+1	tools/hadoop tests	6m 9s	Tests passed in hadoop-streaming.
-1	hdfs tests	3m 19s	Tests failed in hadoop-hdfs-httpfs.
		85m 48s	

Reason	Tests
Failed unit tests	hadoop.fs.http.client.TestHttpFSWithHttpFSFileSystem
	hadoop.fs.http.client.TestHttpFSFWithWebhdfsFileSystem
	hadoop.fs.http.client.TestHttpFSFWithSWebhdfsFileSystem

Subsystem	Report/Notes
Patch URL	http://issues.apache.org/jira/secure/attachment/12732990/HADOOP-11969.4.patch
Optional Tests	javadoc javac unit findbugs checkstyle
git revision	trunk / 53fe4ef

hadoop-common test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6697/artifact/patchprocess/testrun_hadoop-common.txt
hadoop-kms test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6697/artifact/patchprocess/testrun_hadoop-kms.txt
hadoop-mapreduce-client-core test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6697/artifact/patchprocess/testrun_hadoop-mapreduce-client-core.txt
hadoop-distcp test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6697/artifact/patchprocess/testrun_hadoop-distcp.txt
hadoop-streaming test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6697/artifact/patchprocess/testrun_hadoop-streaming.txt
hadoop-hdfs-httpfs test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6697/artifact/patchprocess/testrun_hadoop-hdfs-httpfs.txt
Test Results	https://builds.apache.org/job/PreCommit-HADOOP-Build/6697/testReport/
Java	1.7.0_55
uname	Linux asf901.gq1.ygridcore.net 3.13.0-36-lowlatency #63-Ubuntu SMP PREEMPT Wed Sep 3 21:56:12 UTC 2014 x86_64 x86_64 x86_64 GNU/Linux
Console output	https://builds.apache.org/job/PreCommit-HADOOP-Build/6697/console

This message was automatically generated.

Sean Busbey added a comment - 15/May/15 07:32

those three tests all fail on trunk for me without this patch.

Sean Busbey added a comment - 15/May/15 08:19

reopened HDFS-8332, which git bisect says is the cause of the test failures above.

Sean Busbey added a comment - 16/May/15 06:16

toggling back to patch available since the failures are not related (and fixed by HDFS-8412)

Colin McCabe added a comment - 19/May/15 17:24

+1. Test failures appear to be unrelated.

Colin McCabe added a comment - 19/May/15 18:16

This probably needs to be rebased after HADOOP-11970

Sean Busbey added a comment - 19/May/15 18:17

cancel patch to rebase.

Sean Busbey added a comment - 19/May/15 18:24

-05

- rebase to current trunk

Hadoop QA added a comment - 19/May/15 20:03

✅ **+1 overall**

Vote	Subsystem	Runtime	Comment
0	pre-patch	14m 41s	Pre-patch trunk compilation is healthy.
+1	@author	0m 0s	The patch does not contain any @author tags.

+1	tests included	0m 0s	The patch appears to include 3 new or modified test files.
+1	javac	7m 31s	There were no new javac warning messages.
+1	javadoc	9m 41s	There were no new javadoc warning messages.
+1	release audit	0m 21s	The applied patch does not increase the total number of release audit warnings.
+1	checkstyle	3m 33s	There were no new checkstyle issues.
+1	whitespace	0m 1s	The patch has no lines that end in whitespace.
+1	install	1m 34s	mvn install still works.
+1	eclipse:eclipse	0m 33s	The patch built with eclipse:eclipse.
+1	findbugs	5m 29s	The patch does not introduce any new Findbugs (version 3.0.0) warnings.
+1	common tests	23m 31s	Tests passed in hadoop-common.
+1	common tests	1m 38s	Tests passed in hadoop-kms.
+1	mapreduce tests	1m 40s	Tests passed in hadoop-mapreduce-client-core.
+1	tools/hadoop tests	6m 2s	Tests passed in hadoop-distcp.
+1	tools/hadoop tests	6m 8s	Tests passed in hadoop-streaming.
+1	hdfs tests	3m 37s	Tests passed in hadoop-hdfs-httpfs.
		86m 5s	

Subsystem	Report/Notes
Patch URL	http://issues.apache.org/jira/secure/attachment/12733905/HADOOP-11969.5.patch
Optional Tests	javadoc javac unit findbugs checkstyle
git revision	trunk / fd3cb53
hadoop-common test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6743/artifact/patchprocess/testrun_hadoop-common.txt
hadoop-kms test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6743/artifact/patchprocess/testrun_hadoop-kms.txt
hadoop-mapreduce-client-core test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6743/artifact/patchprocess/testrun_hadoop-mapreduce-client-core.txt
hadoop-distcp test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6743/artifact/patchprocess/testrun_hadoop-distcp.txt
hadoop-streaming test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6743/artifact/patchprocess/testrun_hadoop-streaming.txt
hadoop-hdfs-httpfs test log	https://builds.apache.org/job/PreCommit-HADOOP-Build/6743/artifact/patchprocess/testrun_hadoop-hdfs-httpfs.txt
Test Results	https://builds.apache.org/job/PreCommit-HADOOP-Build/6743/testReport/
Java	1.7.0_55
uname	Linux asf909.gq1.ygridcore.net 3.13.0-36-lowlatency #63-Ubuntu SMP PREEMPT Wed Sep 3 21:56:12 UTC 2014 x86_64 x86_64 x86_64 GNU/Linux
Console output	https://builds.apache.org/job/PreCommit-HADOOP-Build/6743/console

This message was automatically generated.

Colin McCabe added a comment - 26/May/15 19:14

Thanks for rebasing, busbey. +1 once more, will commit shortly

Hudson added a comment - 26/May/15 20:10

FAILURE: Integrated in Hadoop-trunk-Commit #7905 (See https://builds.apache.org/job/Hadoop-trunk-Commit/7905/) HADOOP-11969. ThreadLocal initialization in several classes is not thread safe (Sean Busbey via Colin P. McCabe) (cmccabe: rev 7dba7005b79994106321b0f86bc8f4ea51a3c185)

- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesWritableInput.java

- hadoop-tools/hadoop-distcp/src/main/java/org/apache/hadoop/tools/util/DistCpUtils.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/record/BinaryRecordOutput.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestDirHelper.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-
  core/src/main/java/org/apache/hadoop/mapred/lib/Chain.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesRecordOutput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesInput.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-
  core/src/main/java/org/apache/hadoop/mapred/pipes/PipesPartitioner.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-
  core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/ShuffleSchedulerImpl.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesWritableOutput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesRecordInput.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestHdfsHelper.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/io/Text.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/main/java/org/apache/hadoop/lib/servlet/ServerWebApp.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/record/BinaryRecordInput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesOutput.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/io/MD5Hash.java
- hadoop-common-project/hadoop-kms/src/main/java/org/apache/hadoop/crypto/key/kms/server/KMSMDCFilter.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/util/ReflectionUtils.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestJettyHelper.java

Hudson added a comment - 27/May/15 00:14

SUCCESS: Integrated in Hadoop-Yarn-trunk-Java8 #209 (See https://builds.apache.org/job/Hadoop-Yarn-trunk-Java8/209/)
HADOOP-11969. ThreadLocal initialization in several classes is not thread safe (Sean Busbey via Colin P. McCabe) (cmccabe: rev
7dba7005b79994106321b0f86bc8f4ea51a3c185)

- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesInput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/record/BinaryRecordOutput.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/util/ReflectionUtils.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestDirHelper.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesOutput.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/io/Text.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/record/BinaryRecordInput.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestJettyHelper.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesRecordOutput.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-
  core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/ShuffleSchedulerImpl.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-
  core/src/main/java/org/apache/hadoop/mapred/lib/Chain.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesRecordInput.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestHdfsHelper.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesWritableOutput.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/io/MD5Hash.java
- hadoop-tools/hadoop-distcp/src/main/java/org/apache/hadoop/tools/util/DistCpUtils.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesWritableInput.java
- hadoop-common-project/hadoop-kms/src/main/java/org/apache/hadoop/crypto/key/kms/server/KMSMDCFilter.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-
  core/src/main/java/org/apache/hadoop/mapred/pipes/PipesPartitioner.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/main/java/org/apache/hadoop/lib/servlet/ServerWebApp.java

Hudson added a comment - 27/May/15 11:40

FAILURE: Integrated in Hadoop-Yarn-trunk #940 (See https://builds.apache.org/job/Hadoop-Yarn-trunk/940/)
HADOOP-11969. ThreadLocal initialization in several classes is not thread safe (Sean Busbey via Colin P. McCabe) (cmccabe: rev
7dba7005b79994106321b0f86bc8f4ea51a3c185)

- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestDirHelper.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestJettyHelper.java
- hadoop-tools/hadoop-distcp/src/main/java/org/apache/hadoop/tools/util/DistCpUtils.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-
  core/src/main/java/org/apache/hadoop/mapred/pipes/PipesPartitioner.java

- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/record/BinaryRecordOutput.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/ShuffleSchedulerImpl.java
- hadoop-common-project/hadoop-kms/src/main/java/org/apache/hadoop/crypto/key/kms/server/KMSMDCFilter.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesWritableOutput.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/main/java/org/apache/hadoop/lib/servlet/ServerWebApp.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapred/lib/Chain.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/util/ReflectionUtils.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestHdfsHelper.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesInput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesRecordOutput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesOutput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesWritableInput.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/io/Text.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesRecordInput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/record/BinaryRecordInput.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/io/MD5Hash.java

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☑ ◯ Hudson added a comment - 27/May/15 13:20

FAILURE: Integrated in Hadoop-Mapreduce-trunk-Java8 #208 (See https://builds.apache.org/job/Hadoop-Mapreduce-trunk-Java8/208/)
HADOOP-11969. ThreadLocal initialization in several classes is not thread safe (Sean Busbey via Colin P. McCabe) (cmccabe: rev 7dba7005b79994106321b0f86bc8f4ea51a3c185)

- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesRecordOutput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesWritableOutput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesOutput.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/util/ReflectionUtils.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapred/lib/Chain.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/record/BinaryRecordOutput.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/io/Text.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapred/pipes/PipesPartitioner.java
- hadoop-tools/hadoop-distcp/src/main/java/org/apache/hadoop/tools/util/DistCpUtils.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesWritableInput.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestHdfsHelper.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/io/MD5Hash.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/ShuffleSchedulerImpl.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/record/BinaryRecordInput.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestJettyHelper.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/main/java/org/apache/hadoop/lib/servlet/ServerWebApp.java
- hadoop-common-project/hadoop-kms/src/main/java/org/apache/hadoop/crypto/key/kms/server/KMSMDCFilter.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesInput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesRecordInput.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestDirHelper.java

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☑ ◯ Hudson added a comment - 27/May/15 14:25

FAILURE: Integrated in Hadoop-Hdfs-trunk #2138 (See https://builds.apache.org/job/Hadoop-Hdfs-trunk/2138/)
HADOOP-11969. ThreadLocal initialization in several classes is not thread safe (Sean Busbey via Colin P. McCabe) (cmccabe: rev 7dba7005b79994106321b0f86bc8f4ea51a3c185)

- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestDirHelper.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/io/Text.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/main/java/org/apache/hadoop/lib/servlet/ServerWebApp.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestJettyHelper.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapred/lib/Chain.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/record/BinaryRecordOutput.java

- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapred/pipes/PipesPartitioner.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesWritableInput.java
- hadoop-tools/hadoop-distcp/src/main/java/org/apache/hadoop/tools/util/DistCpUtils.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/util/ReflectionUtils.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesRecordInput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesWritableOutput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesInput.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/ShuffleSchedulerImpl.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/record/BinaryRecordInput.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestHdfsHelper.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesRecordOutput.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/io/MD5Hash.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesOutput.java
- hadoop-common-project/hadoop-kms/src/main/java/org/apache/hadoop/crypto/key/kms/server/KMSMDCFilter.java

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▾ ◯ Hudson added a comment - 27/May/15 14:35

FAILURE: Integrated in Hadoop-Hdfs-trunk-Java8 #198 (See https://builds.apache.org/job/Hadoop-Hdfs-trunk-Java8/198/)
HADOOP-11969. ThreadLocal initialization in several classes is not thread safe (Sean Busbey via Colin P. McCabe) (cmccabe: rev 7dba7005b79994106321b0f86bc8f4ea51a3c185)

- hadoop-common-project/hadoop-kms/src/main/java/org/apache/hadoop/crypto/key/kms/server/KMSMDCFilter.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/io/MD5Hash.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/ShuffleSchedulerImpl.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesOutput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/record/BinaryRecordOutput.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/main/java/org/apache/hadoop/lib/servlet/ServerWebApp.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesWritableInput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesInput.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestHdfsHelper.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapred/pipes/PipesPartitioner.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapred/lib/Chain.java
- hadoop-tools/hadoop-distcp/src/main/java/org/apache/hadoop/tools/util/DistCpUtils.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/record/BinaryRecordInput.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestDirHelper.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesWritableOutput.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/util/ReflectionUtils.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestJettyHelper.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/io/Text.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesRecordOutput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesRecordInput.java

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▾ ◯ Hudson added a comment - 27/May/15 15:28

FAILURE: Integrated in Hadoop-Mapreduce-trunk #2156 (See https://builds.apache.org/job/Hadoop-Mapreduce-trunk/2156/)
HADOOP-11969. ThreadLocal initialization in several classes is not thread safe (Sean Busbey via Colin P. McCabe) (cmccabe: rev 7dba7005b79994106321b0f86bc8f4ea51a3c185)

- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesWritableInput.java
- hadoop-common-project/hadoop-kms/src/main/java/org/apache/hadoop/crypto/key/kms/server/KMSMDCFilter.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/main/java/org/apache/hadoop/lib/servlet/ServerWebApp.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesOutput.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapreduce/task/reduce/ShuffleSchedulerImpl.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestJettyHelper.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesWritableOutput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesRecordInput.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/io/Text.java

- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapred/pipes/PipesPartitioner.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesInput.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/io/MD5Hash.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestHdfsHelper.java
- hadoop-mapreduce-project/hadoop-mapreduce-client/hadoop-mapreduce-client-core/src/main/java/org/apache/hadoop/mapred/lib/Chain.java
- hadoop-tools/hadoop-distcp/src/main/java/org/apache/hadoop/tools/util/DistCpUtils.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/record/BinaryRecordOutput.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/record/BinaryRecordInput.java
- hadoop-hdfs-project/hadoop-hdfs-httpfs/src/test/java/org/apache/hadoop/test/TestDirHelper.java
- hadoop-common-project/hadoop-common/src/main/java/org/apache/hadoop/util/ReflectionUtils.java
- hadoop-tools/hadoop-streaming/src/main/java/org/apache/hadoop/typedbytes/TypedBytesRecordOutput.java

Sean Busbey added a comment - 18/Mar/16 17:04

could we get this backported to 2.6/2.7?

Sangjin Lee added a comment - 19/Mar/16 20:40

busbey, out of curiosity, when you saw this issue, what was the JVM and its version? Did you see this with more than one type/version of the JVM?

Sean Busbey added a comment - 20/Mar/16 01:06

This was long enough ago that I do not know. I'll poke about and see if I happen to have more notes somewhere. Just on odds, I'd guess an Oracle JVM but no clue on a specific version.

Sangjin Lee added a comment - 21/Mar/16 15:58

I also added a comment on HDFS-10183.

I believe that JLS makes it clear that a memory barrier is required for the static initialization (by the JVM) and is expected from the user standpoint. This is something we should be able to rely on safely, or we have a bigger problem. And I don't think there is anything special about `ThreadLocal`.

I think it is a good idea to make these static variables final for a semantic reason and possibly to work around a JVM bug. However, for the record, we should be able to rely on any initial values of (non-final) static fields in general.

People

Assignee:

Sean Busbey

Reporter:

Sean Busbey

Votes:

0   Vote for this issue

Watchers:

5   Start watching this issue

Dates

Created:

14/May/15 13:46

Updated:

30/Aug/16 01:27

Resolved:

26/May/15 19:41