```
Item 148
git_comments:
git_commits:
   1. summary: HBASE-2018 Updates to .META. blocked under high MemStore load
     message: HBASE-2018 Updates to .META. blocked under high MemStore load git-svn-id:
     https://svn.apache.org/repos/asf/hadoop/hbase/trunk@887054 13f79535-47bb-0310-9956-ffa450edef68
github_issues:
github_issues_comments:
github_pulls:
github_pulls_comments:
github_pulls_reviews:
jira_issues:
   1. summary: Updates to .META. blocked under high MemStore load
      description: I discovered this on Lars' cluster. The symptom was the good old: {code} 09/11/30 08:10:26 INFO
      mapred.JobClient: Task Id: attempt_200911250121_0011_r_000010_1, Status: FAILED
      org.apache.hadoop.hbase.client.RetriesExhaustedException: Trying to contact region server Some server,
      retryOnlyOne=true, index=0, islastrow=false, tries=9, numtries=10, i=14, listsize=20, region=prev-
      docs,de68fb97795ef3d936a3f10ff8790253,1259573366564 for region prev-
      docs.ccea967e66ccb53d83c48849c3a23f21.1259542138868. row 'ccff8cd4ca871c41f4fa7d44cffed962', but failed after 10
      attempts. Exceptions: at
      org.apache.hadoop.hbase.client.HConnectionManager$TableServers$Batch.process(HConnectionManager.java:1120) at
      org.apache.hadoop.hbase.client.HConnectionManager$TableServers.processBatchOfRows(HConnectionManager.java:1201)
      at org.apache.hadoop.hbase.client.HTable.flushCommits(HTable.java:605) at
      org.apache.hadoop.hbase.client.HTable.put(HTable.java:470) at
      org.apache.hadoop.hbase.mapreduce.TableOutputFormat$TableRecordW {code} But the load wasn't that heavy, just lots of
      splitting going on. Looking at the logs, I see a split taking more than 4 minutes which is explained by this happening on the
      RS hosting .META.: {code} 2009-11-30 08:08:39,922 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher:
      Forced flushing of prev-docs,2c9d51e57b20decd5c6419d23ede822b,1259542273901 because global memstore limit of
      1.6g exceeded; currently 1.6g and flushing till 1021.9m ... 2009-11-30 08:12:33,743 DEBUG
      org.apache.hadoop.hbase.regionserver.HRegion: Finished memstore flush of ~22.9m for region prev-
      docs,c8fea4fbbc41e746d960854ed4d41dd6,1259587143838 in 14160ms, sequence id=13677, compaction requested=false
      2009-11-30 08:12:33,744 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher: Forced flushing of prev-
      docs,39c2995d955c041d21f4dc4a0d0dbf6c,1259587061295 because global memstore limit of 1.6g exceeded; currently
      1.0g and flushing till 1021.9m {code} So we should not block updates to .META. for any reason. I'm pretty sure this issue
      explains other issues we've seen on the mailing list.
   2. summary: Updates to .META. blocked under high MemStore load
      description: I discovered this on Lars' cluster. The symptom was the good old: {code} 09/11/30 08:10:26 INFO
      mapred.JobClient: Task Id: attempt_200911250121_0011_r_000010_1, Status: FAILED
      org.apache.hadoop.hbase.client.RetriesExhaustedException: Trying to contact region server Some server,
      retryOnlyOne=true, index=0, islastrow=false, tries=9, numtries=10, i=14, listsize=20, region=prev-
      docs,de68fb97795ef3d936a3f10ff8790253,1259573366564 for region prev-
      docs,ccea967e66ccb53d83c48849c3a23f21,1259542138868, row 'ccff8cd4ca871c41f4fa7d44cffed962', but failed after 10
      attempts. Exceptions: at
      org.apache.hadoop.hbase.client.HConnectionManager$TableServers$Batch.process(HConnectionManager.java:1120) at
      org.apache.hadoop.hbase.client.HConnectionManager$TableServers.processBatchOfRows(HConnectionManager.java:1201)
      at org.apache.hadoop.hbase.client.HTable.flushCommits(HTable.java:605) at
      org.apache.hadoop.hbase.client.HTable.put(HTable.java:470) at
      org.apache.hadoop.hbase.mapreduce.TableOutputFormat$TableRecordW {code} But the load wasn't that heavy, just lots of
      splitting going on. Looking at the logs, I see a split taking more than 4 minutes which is explained by this happening on the
      RS hosting .META.: {code} 2009-11-30 08:08:39,922 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher:
      Forced flushing of prev-docs, 2c9d51e57b20decd5c6419d23ede822b, 1259542273901 because global memstore limit of
```

3. **summary:** Updates to .META. blocked under high MemStore load

explains other issues we've seen on the mailing list.

1.6g exceeded; currently 1.6g and flushing till 1021.9m ... 2009-11-30 08:12:33,743 DEBUG

org.apache.hadoop.hbase.regionserver.HRegion: Finished memstore flush of ~22.9m for region prev-

docs,c8fea4fbbc41e746d960854ed4d41dd6,1259587143838 in 14160ms, sequence id=13677, compaction requested=false 2009-11-30 08:12:33,744 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher: Forced flushing of prevdocs,39c2995d955c041d21f4dc4a0d0dbf6c,1259587061295 because global memstore limit of 1.6g exceeded; currently 1.0g and flushing till 1021.9m {code} So we should not block updates to .META. for any reason. I'm pretty sure this issue

```
retryOnlyOne=true, index=0, islastrow=false, tries=9, numtries=10, i=14, listsize=20, region=prev-
docs,de68fb97795ef3d936a3f10ff8790253,1259573366564 for region prev-
docs,ccea967e66ccb53d83c48849c3a23f21,1259542138868, row 'ccff8cd4ca871c41f4fa7d44cffed962', but failed after 10
attempts. Exceptions: at
org.apache.hadoop.hbase.client.HConnectionManager$TableServers$Batch.process(HConnectionManager.java:1120) at
org.apache.hadoop.hbase.client.HConnectionManager$TableServers.processBatchOfRows(HConnectionManager.java:1201)
at org.apache.hadoop.hbase.client.HTable.flushCommits(HTable.java:605) at
org.apache.hadoop.hbase.client.HTable.put(HTable.java:470) at
org.apache.hadoop.hbase.mapreduce.TableOutputFormat$TableRecordW {code} But the load wasn't that heavy, just lots of
splitting going on. Looking at the logs, I see a split taking more than 4 minutes which is explained by this happening on the
RS hosting .META.: {code} 2009-11-30 08:08:39,922 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher:
Forced flushing of prev-docs,2c9d51e57b20decd5c6419d23ede822b,1259542273901 because global memstore limit of
1.6g exceeded; currently 1.6g and flushing till 1021.9m ... 2009-11-30 08:12:33,743 DEBUG
org.apache.hadoop.hbase.regionserver.HRegion: Finished memstore flush of ~22.9m for region prev-
docs,c8fea4fbbc41e746d960854ed4d41dd6,1259587143838 in 14160ms, sequence id=13677, compaction requested=false
2009-11-30 08:12:33,744 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher: Forced flushing of prev-
docs,39c2995d955c041d21f4dc4a0d0dbf6c,1259587061295 because global memstore limit of 1.6g exceeded; currently
1.0g and flushing till 1021.9m {code} So we should not block updates to .META. for any reason. I'm pretty sure this issue
explains other issues we've seen on the mailing list.
summary: Updates to .META. blocked under high MemStore load
description: I discovered this on Lars' cluster. The symptom was the good old: {code} 09/11/30 08:10:26 INFO
mapred.JobClient: Task Id: attempt_200911250121_0011_r_000010_1, Status: FAILED
org.apache.hadoop.hbase.client.RetriesExhaustedException: Trying to contact region server Some server,
retryOnlyOne=true, index=0, islastrow=false, tries=9, numtries=10, i=14, listsize=20, region=prev-
docs,de68fb97795ef3d936a3f10ff8790253,1259573366564 for region prev-
docs,ccea967e66ccb53d83c48849c3a23f21,1259542138868, row 'ccff8cd4ca871c41f4fa7d44cffed962', but failed after 10
attempts. Exceptions: at
org.apache.hadoop.hbase.client.HConnectionManager$TableServers$Batch.process(HConnectionManager.java:1120) at
org.apache.hadoop.hbase.client.HConnectionManager$TableServers.processBatchOfRows(HConnectionManager.java:1201)
at org.apache.hadoop.hbase.client.HTable.flushCommits(HTable.java:605) at
org.apache.hadoop.hbase.client.HTable.put(HTable.java:470) at
org.apache.hadoop.hbase.mapreduce.TableOutputFormat$TableRecordW {code} But the load wasn't that heavy, just lots of
splitting going on. Looking at the logs, I see a split taking more than 4 minutes which is explained by this happening on the
RS hosting .META.: {code} 2009-11-30 08:08:39,922 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher:
Forced flushing of prev-docs,2c9d51e57b20decd5c6419d23ede822b,1259542273901 because global memstore limit of
1.6g exceeded; currently 1.6g and flushing till 1021.9m ... 2009-11-30 08:12:33,743 DEBUG
org.apache.hadoop.hbase.regionserver.HRegion: Finished memstore flush of ~22.9m for region prev-
docs,c8fea4fbbc41e746d960854ed4d41dd6,1259587143838 in 14160ms, sequence id=13677, compaction requested=false
2009-11-30 08:12:33,744 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher: Forced flushing of prev-
docs,39c2995d955c041d21f4dc4a0d0dbf6c,1259587061295 because global memstore limit of 1.6g exceeded; currently
1.0g and flushing till 1021.9m {code} So we should not block updates to .META. for any reason. I'm pretty sure this issue
explains other issues we've seen on the mailing list.
summary: Updates to .META. blocked under high MemStore load
description: I discovered this on Lars' cluster. The symptom was the good old: {code} 09/11/30 08:10:26 INFO
mapred.JobClient: Task Id: attempt_200911250121_0011_r_000010_1, Status: FAILED
org.apache.hadoop.hbase.client.RetriesExhaustedException: Trying to contact region server Some server,
retryOnlyOne=true, index=0, islastrow=false, tries=9, numtries=10, i=14, listsize=20, region=prev-
docs,de68fb97795ef3d936a3f10ff8790253,1259573366564 for region prev-
docs,ccea967e66ccb53d83c48849c3a23f21,1259542138868, row 'ccff8cd4ca871c41f4fa7d44cffed962', but failed after 10
attempts. Exceptions: at
org.apache.hadoop.hbase.client.HConnectionManager$TableServers$Batch.process(HConnectionManager.java:1120) at
org.apache.hadoop.hbase.client.HConnectionManager$TableServers.processBatchOfRows(HConnectionManager.java:1201)
at org.apache.hadoop.hbase.client.HTable.flushCommits(HTable.java:605) at
org.apache.hadoop.hbase.client.HTable.put(HTable.java:470) at
org.apache.hadoop.hbase.mapreduce.TableOutputFormat$TableRecordW {code} But the load wasn't that heavy, just lots of
splitting going on. Looking at the logs, I see a split taking more than 4 minutes which is explained by this happening on the
RS hosting .META.: {code} 2009-11-30 08:08:39,922 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher:
Forced flushing of prev-docs,2c9d51e57b20decd5c6419d23ede822b,1259542273901 because global memstore limit of
1.6g exceeded; currently 1.6g and flushing till 1021.9m ... 2009-11-30 08:12:33,743 DEBUG
org.apache.hadoop.hbase.regionserver.HRegion: Finished memstore flush of ~22.9m for region prev-
docs,c8fea4fbbc41e746d960854ed4d41dd6,1259587143838 in 14160ms, sequence id=13677, compaction requested=false
2009-11-30 08:12:33,744 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher: Forced flushing of prev-
docs,39c2995d955c041d21f4dc4a0d0dbf6c,1259587061295 because global memstore limit of 1.6g exceeded; currently
1.0g and flushing till 1021.9m {code} So we should not block updates to .META. for any reason. I'm pretty sure this issue
```

explains other issues we've seen on the mailing list.

description: I discovered this on Lars' cluster. The symptom was the good old: {code} 09/11/30 08:10:26 INFO

org.apache.hadoop.hbase.client.RetriesExhaustedException: Trying to contact region server Some server,

mapred.JobClient: Task Id: attempt 200911250121 0011 r 000010 1, Status: FAILED

6. **summary:** Updates to .META. blocked under high MemStore load description: I discovered this on Lars' cluster. The symptom was the good old: {code} 09/11/30 08:10:26 INFO mapred.JobClient: Task Id: attempt 200911250121 0011 r 000010 1, Status: FAILED org.apache.hadoop.hbase.client.RetriesExhaustedException: Trying to contact region server Some server, retryOnlyOne=true, index=0, islastrow=false, tries=9, numtries=10, i=14, listsize=20, region=prevdocs,de68fb97795ef3d936a3f10ff8790253,1259573366564 for region prevdocs,ccea967e66ccb53d83c48849c3a23f21,1259542138868, row 'ccff8cd4ca871c41f4fa7d44cffed962', but failed after 10 attempts. Exceptions: at org.apache.hadoop.hbase.client.HConnectionManager\$TableServers\$Batch.process(HConnectionManager.java:1120) at org.apache.hadoop.hbase.client.HConnectionManager\$TableServers.processBatchOfRows(HConnectionManager.java:1201) at org.apache.hadoop.hbase.client.HTable.flushCommits(HTable.java:605) at org.apache.hadoop.hbase.client.HTable.put(HTable.java:470) at org.apache.hadoop.hbase.mapreduce.TableOutputFormat\$TableRecordW {code} But the load wasn't that heavy, just lots of splitting going on. Looking at the logs, I see a split taking more than 4 minutes which is explained by this happening on the RS hosting .META.: {code} 2009-11-30 08:08:39,922 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher: Forced flushing of prev-docs, 2c9d51e57b20decd5c6419d23ede822b, 1259542273901 because global memstore limit of 1.6g exceeded; currently 1.6g and flushing till 1021.9m ... 2009-11-30 08:12:33,743 DEBUG org.apache.hadoop.hbase.regionserver.HRegion: Finished memstore flush of ~22.9m for region prevdocs.c8fea4fbbc41e746d960854ed4d41dd6.1259587143838 in 14160ms, sequence id=13677, compaction requested=false 2009-11-30 08:12:33,744 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher: Forced flushing of prevdocs,39c2995d955c041d21f4dc4a0d0dbf6c,1259587061295 because global memstore limit of 1.6g exceeded; currently 1.0g and flushing till 1021.9m {code} So we should not block updates to .META. for any reason. I'm pretty sure this issue explains other issues we've seen on the mailing list. **summary:** Updates to .META. blocked under high MemStore load description: I discovered this on Lars' cluster. The symptom was the good old: {code} 09/11/30 08:10:26 INFO mapred.JobClient: Task Id: attempt_200911250121_0011_r_000010_1, Status: FAILED org.apache.hadoop.hbase.client.RetriesExhaustedException: Trying to contact region server Some server, retryOnlyOne=true, index=0, islastrow=false, tries=9, numtries=10, i=14, listsize=20, region=prevdocs,de68fb97795ef3d936a3f10ff8790253,1259573366564 for region prevdocs,ccea967e66ccb53d83c48849c3a23f21,1259542138868, row 'ccff8cd4ca871c41f4fa7d44cffed962', but failed after 10 attempts. Exceptions: at org.apache.hadoop.hbase.client.HConnectionManager\$TableServers\$Batch.process(HConnectionManager.java:1120) at org.apache.hadoop.hbase.client.HConnectionManager\$TableServers.processBatchOfRows(HConnectionManager.java:1201) at org.apache.hadoop.hbase.client.HTable.flushCommits(HTable.java:605) at org.apache.hadoop.hbase.client.HTable.put(HTable.java:470) at org.apache.hadoop.hbase.mapreduce.TableOutputFormat\$TableRecordW {code} But the load wasn't that heavy, just lots of splitting going on. Looking at the logs, I see a split taking more than 4 minutes which is explained by this happening on the RS hosting .META.: {code} 2009-11-30 08:08:39,922 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher: Forced flushing of prev-docs,2c9d51e57b20decd5c6419d23ede822b,1259542273901 because global memstore limit of 1.6g exceeded; currently 1.6g and flushing till 1021.9m ... 2009-11-30 08:12:33,743 DEBUG org.apache.hadoop.hbase.regionserver.HRegion: Finished memstore flush of ~22.9m for region prevdocs,c8fea4fbbc41e746d960854ed4d41dd6,1259587143838 in 14160ms, sequence id=13677, compaction requested=false 2009-11-30 08:12:33,744 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher: Forced flushing of prevdocs,39c2995d955c041d21f4dc4a0d0dbf6c,1259587061295 because global memstore limit of 1.6g exceeded; currently 1.0g and flushing till 1021.9m {code} So we should not block updates to .META. for any reason. I'm pretty sure this issue explains other issues we've seen on the mailing list. label: code-design 8. summary: Updates to .META. blocked under high MemStore load description: I discovered this on Lars' cluster. The symptom was the good old: {code} 09/11/30 08:10:26 INFO mapred.JobClient: Task Id: attempt_200911250121_0011_r_000010_1, Status: FAILED org.apache.hadoop.hbase.client.RetriesExhaustedException: Trying to contact region server Some server, retryOnlyOne=true, index=0, islastrow=false, tries=9, numtries=10, i=14, listsize=20, region=prevdocs,de68fb97795ef3d936a3f10ff8790253,1259573366564 for region prevdocs,ccea967e66ccb53d83c48849c3a23f21,1259542138868, row 'ccff8cd4ca871c41f4fa7d44cffed962', but failed after 10 attempts. Exceptions: at org.apache.hadoop.hbase.client.HConnectionManager\$TableServers\$Batch.process(HConnectionManager.java:1120) at org.apache.hadoop.hbase.client.HConnectionManager\$TableServers.processBatchOfRows(HConnectionManager.java:1201) at org.apache.hadoop.hbase.client.HTable.flushCommits(HTable.java:605) at org.apache.hadoop.hbase.client.HTable.put(HTable.java:470) at org.apache.hadoop.hbase.mapreduce.TableOutputFormat\$TableRecordW {code} But the load wasn't that heavy, just lots of splitting going on. Looking at the logs, I see a split taking more than 4 minutes which is explained by this happening on the RS hosting .META.: {code} 2009-11-30 08:08:39,922 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher: Forced flushing of prev-docs,2c9d51e57b20decd5c6419d23ede822b,1259542273901 because global memstore limit of 1.6g exceeded; currently 1.6g and flushing till 1021.9m ... 2009-11-30 08:12:33,743 DEBUG org.apache.hadoop.hbase.regionserver.HRegion: Finished memstore flush of ~22.9m for region prevdocs,c8fea4fbbc41e746d960854ed4d41dd6,1259587143838 in 14160ms, sequence id=13677, compaction requested=false 2009-11-30 08:12:33,744 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher: Forced flushing of prev-

docs,39c2995d955c041d21f4dc4a0d0dbf6c,1259587061295 because global memstore limit of 1.6g exceeded; currently

1.0g and flushing till 1021.9m {code} So we should not block updates to .META. for any reason. I'm pretty sure this issue explains other issues we've seen on the mailing list.

9. summary: Updates to .META. blocked under high MemStore load description: I discovered this on Lars' cluster. The symptom was the good old: {code} 09/11/30 08:10:26 INFO

mapred.JobClient: Task Id: attempt_200911250121_0011_r_000010_1, Status: FAILED org.apache.hadoop.hbase.client.RetriesExhaustedException: Trying to contact region server Some server,

retryOnlyOne=true, index=0, islastrow=false, tries=9, numtries=10, i=14, listsize=20, region=prev-

docs,de68fb97795ef3d936a3f10ff8790253,1259573366564 for region prev-

docs,ccea967e66ccb53d83c48849c3a23f21,1259542138868, row 'ccff8cd4ca871c41f4fa7d44cffed962', but failed after 10 attempts. Exceptions: at

org.apache.hadoop.hbase.client.HConnectionManager\$TableServers\$Batch.process(HConnectionManager.java:1120) at org.apache.hadoop.hbase.client.HConnectionManager\$TableServers.processBatchOfRows(HConnectionManager.java:1201) at org.apache.hadoop.hbase.client.HTable.flushCommits(HTable.java:605) at

org.apache.hadoop.hbase.client.HTable.put(HTable.java:470) at

org.apache.hadoop.hbase.mapreduce.TableOutputFormat\$TableRecordW {code} But the load wasn't that heavy, just lots of splitting going on. Looking at the logs, I see a split taking more than 4 minutes which is explained by this happening on the RS hosting .META.: {code} 2009-11-30 08:08:39,922 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher: Forced flushing of prev-docs, 2c9d51e57b20decd5c6419d23ede822b, 1259542273901 because global memstore limit of 1.6g exceeded; currently 1.6g and flushing till 1021.9m ... 2009-11-30 08:12:33,743 DEBUG

org.apache.hadoop.hbase.regionserver.HRegion: Finished memstore flush of ~22.9m for region prev-

docs,c8fea4fbbc41e746d960854ed4d41dd6,1259587143838 in 14160ms, sequence id=13677, compaction requested=false 2009-11-30 08:12:33,744 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher: Forced flushing of prevdocs,39c2995d955c041d21f4dc4a0d0dbf6c,1259587061295 because global memstore limit of 1.6g exceeded; currently 1.0g and flushing till 1021.9m {code} So we should not block updates to .META. for any reason. I'm pretty sure this issue explains other issues we've seen on the mailing list.

10. **summary:** Updates to .META. blocked under high MemStore load

description: I discovered this on Lars' cluster. The symptom was the good old: {code} 09/11/30 08:10:26 INFO mapred.JobClient: Task Id: attempt_200911250121_0011_r_000010_1, Status: FAILED org.apache.hadoop.hbase.client.RetriesExhaustedException: Trying to contact region server Some server, retryOnlyOne=true, index=0, islastrow=false, tries=9, numtries=10, i=14, listsize=20, region=prevdocs,de68fb97795ef3d936a3f10ff8790253,1259573366564 for region prev-

docs,ccea967e66ccb53d83c48849c3a23f21,1259542138868, row 'ccff8cd4ca871c41f4fa7d44cffed962', but failed after 10 attempts. Exceptions: at

org.apache.hadoop.hbase.client.HConnectionManager\$TableServers\$Batch.process(HConnectionManager.java:1120) at org.apache.hadoop.hbase.client.HConnectionManager\$TableServers.processBatchOfRows(HConnectionManager.java:1201) at org.apache.hadoop.hbase.client.HTable.flushCommits(HTable.java:605) at

org.apache.hadoop.hbase.client.HTable.put(HTable.java:470) at

org.apache.hadoop.hbase.mapreduce.TableOutputFormat\$TableRecordW {code} But the load wasn't that heavy, just lots of splitting going on. Looking at the logs, I see a split taking more than 4 minutes which is explained by this happening on the RS hosting .META.: {code} 2009-11-30 08:08:39,922 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher: Forced flushing of prev-docs,2c9d51e57b20decd5c6419d23ede822b,1259542273901 because global memstore limit of 1.6g exceeded; currently 1.6g and flushing till 1021.9m ... 2009-11-30 08:12:33,743 DEBUG org.apache.hadoop.hbase.regionserver.HRegion: Finished memstore flush of ~22.9m for region prevdocs,c8fea4fbbc41e746d960854ed4d41dd6,1259587143838 in 14160ms, sequence id=13677, compaction requested=false

2009-11-30 08:12:33,744 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher: Forced flushing of prevdocs,39c2995d955c041d21f4dc4a0d0dbf6c,1259587061295 because global memstore limit of 1.6g exceeded; currently 1.0g and flushing till 1021.9m {code} So we should not block updates to .META. for any reason. I'm pretty sure this issue explains other issues we've seen on the mailing list.

label: code-design

11. summary: Updates to .META. blocked under high MemStore load

description: I discovered this on Lars' cluster. The symptom was the good old: {code} 09/11/30 08:10:26 INFO mapred.JobClient: Task Id: attempt_200911250121_0011_r_000010_1, Status: FAILED org.apache.hadoop.hbase.client.RetriesExhaustedException: Trying to contact region server Some server, retryOnlyOne=true, index=0, islastrow=false, tries=9, numtries=10, i=14, listsize=20, region=prevdocs,de68fb97795ef3d936a3f10ff8790253,1259573366564 for region prev-

docs,ccea967e66ccb53d83c48849c3a23f21,1259542138868, row 'ccff8cd4ca871c41f4fa7d44cffed962', but failed after 10 attempts. Exceptions: at

org.apache.hadoop.hbase.client.HConnectionManager\$TableServers\$Batch.process(HConnectionManager.java:1120) at org.apache.hadoop.hbase.client.HConnectionManager\$TableServers.processBatchOfRows(HConnectionManager.java:1201) at org.apache.hadoop.hbase.client.HTable.flushCommits(HTable.java:605) at

org.apache.hadoop.hbase.client.HTable.put(HTable.java:470) at

org.apache.hadoop.hbase.mapreduce.TableOutputFormat\$TableRecordW {code} But the load wasn't that heavy, just lots of splitting going on. Looking at the logs, I see a split taking more than 4 minutes which is explained by this happening on the RS hosting .META.: {code} 2009-11-30 08:08:39,922 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher: Forced flushing of prev-docs,2c9d51e57b20decd5c6419d23ede822b,1259542273901 because global memstore limit of 1.6g exceeded; currently 1.6g and flushing till 1021.9m ... 2009-11-30 08:12:33,743 DEBUG org.apache.hadoop.hbase.regionserver.HRegion: Finished memstore flush of ~22.9m for region prev-

docs,c8fea4fbbc41e746d960854ed4d41dd6,1259587143838 in 14160ms, sequence id=13677, compaction requested=false

2009-11-30 08:12:33,744 INFO org.apache.hadoop.hbase.regionserver.MemStoreFlusher: Forced flushing of prevdocs,39c2995d955c041d21f4dc4a0d0dbf6c,1259587061295 because global memstore limit of 1.6g exceeded; currently 1.0g and flushing till 1021.9m {code} So we should not block updates to .META. for any reason. I'm pretty sure this issue explains other issues we've seen on the mailing list.

jira_issues_comments:

- 1. This patch adds a check before calling cacheFlusher.reclaimMemStoreMemory so that we don't go waiting on the synchronized method if it's a .META. update. I'm currently running the tests.
- 2. +1 Agree with the issue priority also.
- 3. All the tests pass. I would love if Lars could try out my patch before committing.
- 4. Testing now, takes a few hours to ramp up through the map phase. Results forthcoming...
- 5. So testing for me is not going too well. Overall the patch is not harming anything, I say +1. For my testing I am struggling apparently with a too small cluster:(
- 6. Should this check be for all operations on meta regions, deletes also? See patch -v2.
- 7. **body:** New patch makes sense. Also Lars just reported that his job finally was successful (by tweaking other stuff). At least I think this patch covers a very bad corner case.

label: code-design

- 8. +1 on v2 of patch.
- 9. Committed -v2 patch to trunk and 0.20 branch.