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Status:

Resolution:

RESOLVED

Fixed



Hadoop HDFS / HDFS-13840

RBW Blocks which are having less GS should be added to Corrupt

Details

Type: ■ Bug

Priority: ■ Minor

Affects Version/s: None Fix Version/s: 3.2.0, 3.0.4, 3.1.2

Component/s: None
Labels: None
Hadoop Flags: Reviewed

Description

- 1. Start two DN's (DN1,DN2).
- 2. Write fileA with rep=2 (dn't close)
- 3. Stop DN1.
- 4. Write some data to fileA.
- 5. restart the DN1
- 6. Get the blocklocations of fileA.

Here RWR state block will be reported on DN restart and added to locations.

IMO,RWR blocks which having less GS shouldn't added, as they give false postive (anyway read can be failed as it's genstamp is less)

Attachments

HDFS-13840.patch	5 kB	21/Aug/18 12:36
	5 kB	22/Aug/18 07:56
	5 kB	22/Aug/18 13:38
	6 kB	03/Sep/18 13:26
■ HDFS-13840-005.patch	7 kB	05/Sep/18 13:43

Activity

Brahma Reddy Battula added a comment - 21/Aug/18 12:40

Uploaded the patch.

Updating the replica based on latest GS.Kindly review.

genericqa added a comment - 21/Aug/18 15:24

-1 overall

Vote	Subsystem	Runtime	Comment	
0	reexec	0m 23s	Docker mode activated.	
			Prechecks	
+1	@author	0m 0s	The patch does not contain any @author tags.	
+1	test4tests	0m 0s	The patch appears to include 2 new or modified test files.	
			trunk Compile Tests	
.1	myninetall	21m 5c	trunk naccad	

1 / 11/1			[11D1 5 13040] KBW Blocks which are having less G5 should be added to Corrupt 1101 311(1
+1	IIIVIIIII5taii	Z IIII 35	trurik passeu
+1	compile	0m 53s	trunk passed
+1	checkstyle	0m 48s	trunk passed
+1	mvnsite	1m 2s	trunk passed
+1	shadedclient	11m 48s	branch has no errors when building and testing our client artifacts.
+1	findbugs	1m 59s	trunk passed
+1	javadoc	0m 51s	trunk passed
			Patch Compile Tests
+1	mvninstall	1m 1s	the patch passed
+1	compile	0m 49s	the patch passed
+1	javac	0m 49s	the patch passed
-0	checkstyle	0m 48s	hadoop-hdfs-project/hadoop-hdfs: The patch generated 1 new + 320 unchanged - 1 fixed = 321 total (was 321)
+1	mvnsite	0m 58s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	shadedclient	10m 49s	patch has no errors when building and testing our client artifacts.
+1	findbugs	1m 58s	the patch passed
+1	javadoc	0m 42s	the patch passed
			Other Tests
-1	unit	104m 43s	hadoop-hdfs in the patch failed.
+1	asflicense	0m 35s	The patch does not generate ASF License warnings.
		161m 3s	
			·

Reason	Tests	
Failed junit tests	hadoop.hdfs.server.datanode.TestDataNodeVolumeFailure	
	hadoop.hdfs.web.TestWebHdfsTimeouts	
	hadoop.hdfs.TestLeaseRecovery2	
	hadoop.hdfs.TestRollingUpgrade	
	hadoop.hdfs.server.namenode.TestAddStripedBlocks	
	hadoop.hdfs.server.block management. Test Reconstruct Striped Blocks With Rack Awareness	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:ba1ab08
JIRA Issue	HDFS-13840
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12936435/HDFS-13840.patch
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle
uname	Linux 6e145b4d7815 4.4.0-130-generic #156-Ubuntu SMP Thu Jun 14 08:53:28 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / 54d0bf8
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_171
findbugs	v3.1.0-RC1

checkstyle	https://builds.apache.org/job/PreCommit-HDFS-Build/24825/artifact/out/diff-checkstyle-hadoop-hdfs-project_hadoop-hdfs.txt
unit	https://builds.apache.org/job/PreCommit-HDFS-Build/24825/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt
Test Results	https://builds.apache.org/job/PreCommit-HDFS-Build/24825/testReport/
Max. process+thread count	4142 (vs. ulimit of 10000)
modules	C: hadoop-hdfs-project/hadoop-hdfs U: hadoop-hdfs-project/hadoop-hdfs
Console output	https://builds.apache.org/job/PreCommit-HDFS-Build/24825/console
Powered by	Apache Yetus 0.8.0-SNAPSHOT http://yetus.apache.org

■ O Brahma Reddy Battula added a comment - 22/Aug/18 08:12

Uploaded the patch to fix checkstyle and TestAddStripedBlocks fix.

TestLeaseRecovery2 might not relvant to this, i can able reproduce without this patch, same I commented in HDFS-10240.

genericqa added a comment - 22/Aug/18 11:42

-1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 21s	Docker mode activated.
			Prechecks
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 2 new or modified test files.
			trunk Compile Tests
+1	mvninstall	21m 3s	trunk passed
+1	compile	1m 12s	trunk passed
+1	checkstyle	1m 2s	trunk passed
+1	mvnsite	1m 18s	trunk passed
+1	shadedclient	14m 36s	branch has no errors when building and testing our client artifacts.
+1	findbugs	2m 14s	trunk passed
+1	javadoc	0m 51s	trunk passed
			Patch Compile Tests
+1	mvninstall	1m 13s	the patch passed
+1	compile	0m 59s	the patch passed
+1	javac	0m 59s	the patch passed
+1	checkstyle	0m 55s	the patch passed
+1	mvnsite	1m 8s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	shadedclient	13m 16s	patch has no errors when building and testing our client artifacts.
+1	findbugs	2m 15s	the patch passed
+1	javadoc	0m 48s	the patch passed
			Other Tests
-1	unit	95m 28s	hadoop-hdfs in the patch failed.
+1	asflicense	0m 30s	The patch does not generate ASF License warnings.

158m 39s

Reason	Tests
Failed junit tests	hadoop.hdfs.server.namenode.TestFSEditLogLoader
	hadoop.hdfs.TestErasureCodingPolicyWithSnapshotWithRandomECPolicy
	hadoop.hdfs.TestReadStripedFileWithMissingBlocks
	hadoop.hdfs.TestLeaseRecovery2
	hadoop.hdfs.server.namenode.TestAddStripedBlocks
	hadoop.hdfs.TestSafeModeWithStripedFileWithRandomECPolicy
	hadoop.hdfs.server.namenode.sps.TestStoragePolicySatisfierWithStripedFile
	hadoop.hdfs.server.blockmanagement.TestBlockTokenWithDFSStriped
	hadoop.hdfs.server.namenode.TestAddStripedBlockInFBR
	hadoop.hdfs.TestLeaseRecoveryStriped
	hadoop.hdfs.server.namenode.TestFSImage
	hadoop.hdfs.TestSafeModeWithStripedFile
	hadoop.hdfs. server. block management. Test Reconstruct Striped Blocks With Rack Awareness and the striped Block server. The striped Block server is the striped Block server. The striped Block server is the striped Block server. The striped Block server is the striped Block server is the striped Block server. The striped Block server is the striped Block server is the striped Block server is the striped Block server. The striped Block server is
	hadoop.hdfs.server.namenode.TestNamenodeRetryCache

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:ba1ab08
JIRA Issue	HDFS 13840
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12936599/HDFS-13840-002.patch
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle
uname	Linux b198bab1aa36 3.13.0-139-generic #188-Ubuntu SMP Tue Jan 9 14:43:09 UTC 2018 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / 8184739
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_171
findbugs	v3.1.0-RC1
unit	https://builds.apache.org/job/PreCommit-HDFS-Build/24832/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt
Test Results	https://builds.apache.org/job/PreCommit-HDFS-Build/24832/testReport/
Max. process+thread count	3635 (vs. ulimit of 10000)
modules	C: hadoop-hdfs-project/hadoop-hdfs U: hadoop-hdfs-project/hadoop-hdfs
Console output	https://builds.apache.org/job/PreCommit-HDFS-Build/24832/console
Powered by	Apache Yetus 0.8.0-SNAPSHOT http://yetus.apache.org

This message was automatically generated.

genericqa added a comment - 22/Aug/18 16:20

-1 overall

Vote	Subsystem	Runtime	Comment	
0	reexec	0m 25s	Docker mode activated.	
			Prechecks	
+1	@author	0m 0s	The patch does not contain any @author tags.	
+1	test4tests	0m 0s	The patch appears to include 2 new or modified test files.	
			trunk Compile Tests	
+1	mvninstall	18m 26s	trunk passed	
+1	compile	0m 59s	trunk passed	
+1	checkstyle	0m 58s	trunk passed	
+1	mvnsite	1m 5s	trunk passed	
+1	shadedclient	12m 30s	branch has no errors when building and testing our client artifacts.	
+1	findbugs	2m 3s	trunk passed	
+1	javadoc	0m 50s	trunk passed	
			Patch Compile Tests	
+1	mvninstall	1m 0s	the patch passed	
+1	compile	0m 52s	the patch passed	
+1	javac	0m 52s	the patch passed	
-0	checkstyle	0m 48s	hadoop-hdfs-project/hadoop-hdfs: The patch generated 5 new + 321 unchanged - 0 fixed = 326 total (was 321)	
+1	mvnsite	0m 58s	the patch passed	
+1	whitespace	0m 0s	The patch has no whitespace issues.	
+1	shadedclient	11m 18s	patch has no errors when building and testing our client artifacts.	
+1	findbugs	2m 1s	the patch passed	
+1	javadoc	0m 43s	the patch passed	
			Other Tests	
-1	unit	105m 17s	hadoop-hdfs in the patch failed.	
+1	asflicense	0m 33s	The patch does not generate ASF License warnings.	
		160m 28s		

Reason	Tests
Failed junit tests	hadoop.hdfs.web.TestWebHdfsTimeouts
	hadoop.hdfs.TestLeaseRecovery2
	hadoop.hdfs.server.namenode.sps.TestBlockStorageMovementAttemptedItems
	hadoop.hdfs.TestDFSStripedOutputStreamWithFailureWithRandomECPolicy

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:ba1ab08
JIRA Issue	HDFS-13840
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12936656/HDFS-13840-003.patch
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle
uname	Linux 87485911cfb4 4.4.0-130-generic #156-Ubuntu SMP Thu Jun 14 08:53:28 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh

git revision	trunk / 8184739	
maven	version: Apache Maven 3.3.9	
Default Java	1.8.0_171	
findbugs	v3.1.0-RC1	
checkstyle	https://builds.apache.org/job/PreCommit-HDFS-Build/24834/artifact/out/diff-checkstyle-hadoop-hdfs-project_hadoop-hdfs.txt	
unit	https://builds.apache.org/job/PreCommit-HDFS-Build/24834/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt	
Test Results	https://builds.apache.org/job/PreCommit-HDFS-Build/24834/testReport/	
Max. process+thread count	3910 (vs. ulimit of 10000)	
modules	C: hadoop-hdfs-project/hadoop-hdfs U: hadoop-hdfs-project/hadoop-hdfs	
Console output	https://builds.apache.org/job/PreCommit-HDFS-Build/24834/console	
Powered by	Apache Yetus 0.8.0-SNAPSHOT http://yetus.apache.org	

Surendra Singh Lilhore added a comment - 27/Aug/18 08:12

Thanks brahmareddy for reporting this issue.

In your patch you handled only for first block report. I think this should also be handled for regular report.

▼ ○ Brahma Reddy Battula added a comment - 03/Sep/18 13:35

surendrasingh thanks for taking a look.

. I think this should also be handled for regular report.

Yes, I missed this.

Uploaded the patch to handle all the scenario's. (Marking the block corrupt so that block's will deleted.)

► ○ Hadoop QA added a comment - 03/Sep/18 15:52



Vote	Subsystem	Runtime	Comment	
0	reexec	0m 15s	Docker mode activated.	
			Prechecks	
+1	@author	0m 1s	The patch does not contain any @author tags.	
+1	test4tests	0m 0s	The patch appears to include 2 new or modified test files.	
			trunk Compile Tests	
+1	mvninstall	19m 15s	trunk passed	
+1	compile	1m 5s	trunk passed	
+1	checkstyle	1m 0s	trunk passed	
+1	mvnsite	1m 6s	trunk passed	
+1	shadedclient	13m 5s	branch has no errors when building and testing our client artifacts.	
+1	findbugs	1m 52s	trunk passed	
+1	javadoc	0m 47s	trunk passed	
			Patch Compile Tests	
+1	mvninstall	0m 59s	the patch passed	
+1	compile	0m 52s	the patch passed	

+1	javac	0m 52s	the patch passed
+1	checkstyle	0m 50s	the patch passed
+1	mvnsite	0m 57s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	shadedclient	11m 58s	patch has no errors when building and testing our client artifacts.
+1	findbugs	1m 57s	the patch passed
+1	javadoc	0m 44s	the patch passed
			Other Tests
-1	unit	85m 27s	hadoop-hdfs in the patch failed.
+1	asflicense	0m 28s	The patch does not generate ASF License warnings.
		142m 6s	

Reason	Tests
Failed junit tests	hadoop.hdfs.server.block management. Test Under Replicated Blocks

Subsystem	Report/Notes		
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:ba1ab08		
JIRA Issue	HDFS-13840		
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12938135/HDFS-13840-004.patch		
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle		
uname	Linux 83c0c03fa037 3.13.0-139-generic #188-Ubuntu SMP Tue Jan 9 14:43:09 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux		
Build tool	maven		
Personality	/testptch/patchprocess/precommit/personality/provided.sh		
git revision	trunk / 211034a		
maven	version: Apache Maven 3.3.9		
Default Java	1.8.0_181		
findbugs	v3.1.0-RC1		
unit	https://builds.apache.org/job/PreCommit-HDFS-Build/24948/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt		
Test Results	https://builds.apache.org/job/PreCommit-HDFS-Build/24948/testReport/		
Max. process+thread count	3307 (vs. ulimit of 10000)		
modules	C: hadoop-hdfs-project/hadoop-hdfs U: hadoop-hdfs-project/hadoop-hdfs		
Console output	https://builds.apache.org/job/PreCommit-HDFS-Build/24948/console		
Powered by	Apache Yetus 0.8.0 http://yetus.apache.org		

▼ ○ Brahma Reddy Battula added a comment - 03/Sep/18 16:06

Test failure is unrelated, there was a Jira to track this test failure HDFS-9243.

Surendra Singh Lilhore added a comment - 04/Sep/18 11:12

Thanks brahmareddy for patch.

Some review comment.

1. In checkReplicaCorrupt(), isStriped() block check it is not required. EC file also handle gstamp same as continues file.

```
+ if (!storedBlock.isStriped()
+ && storedBlock.getGenerationStamp() > reported
+ .getGenerationStamp()) {
+ return new BlockToMarkCorrupt(new Block(reported), storedBlock,
+ reportedGS,
```

2. Why the below change is required?, if block is marked as corrupted and it is corrupted during write then it will marked as invalid.

```
+ if (ucBlock.reportedState == ReplicaState.FINALIZED && (
+ block.findStorageInfo(storageInfo) < 0) || corruptReplicas
+ .isReplicaCorrupt(block, storageInfo.getDatanodeDescriptor())) {</pre>
```

- O Brahma Reddy Battula added a comment 05/Sep/18 13:47 edited
 - 1. In checkReplicaCorrupt(), isStriped() block check it is not required. EC file also handle gstamp same as continues file.

Done. I was misunderstand initially, I was thinking stripped testcases are expected with GS 0 .Hence I didn't modified it.

2. Why the below change is required ?, if block is marked as corrupted and it is corrupted during write then it will marked as invalid.

Since I am adding to corrupt storages which will be updated with corrupt. So when same DN report with new GS, we need to overwrite it. I added the comment for same.

➤ ○ Hadoop QA added a comment - 05/Sep/18 16:29



Vote	Subsystem	Runtime	Comment	
0	reexec	0m 35s	Docker mode activated.	
			Prechecks	
+1	@author	0m 0s	The patch does not contain any @author tags.	
+1	test4tests	0m 0s	The patch appears to include 3 new or modified test files.	
			trunk Compile Tests	
+1	mvninstall	17m 53s	trunk passed	
+1	compile	0m 52s	trunk passed	
+1	checkstyle	0m 50s	trunk passed	
+1	mvnsite	1m 0s	trunk passed	
+1	shadedclient	11m 49s	branch has no errors when building and testing our client artifacts.	
+1	findbugs	1m 56s	trunk passed	
+1	javadoc	0m 48s	trunk passed	
			Patch Compile Tests	
+1	mvninstall	0m 57s	the patch passed	
+1	compile	0m 49s	the patch passed	
+1	javac	0m 49s	the patch passed	
+1	checkstyle	0m 48s	the patch passed	
+1	mvnsite	0m 56s	the patch passed	
+1	whitespace	0m 0s	The patch has no whitespace issues.	
+1	shadedclient	11m 2s	patch has no errors when building and testing our client artifact	
+1	findbugs	2m 0s	the patch passed	
+1	javadoc	0m 48s	the patch passed	
			Other Tests	

-1	unit	104m 27s	hadoop-hdfs in the patch failed.
+1	asflicense	0m 30s	The patch does not generate ASF License warnings.
		157m 56s	

Reason	Tests
Failed junit tests	hadoop.hdfs.qjournal.server.TestJournalNode
	had oop.hdfs. Test DFSS triped Output Stream With Failure With Random ECP olicy
	hadoop.hdfs.web.TestWebHdfsTimeouts

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:ba1ab08
JIRA Issue	HDFS-13840
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12938471/HDFS-13840-005.patch
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle
uname Linux 5927dfb20df6 4.4.0-133-generic #159-Ubuntu SMP Fri Aug 10 07:31:43 UTC 20 x86_64 GNU/Linux	
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / df0d61e
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_181
findbugs	v3.1.0-RC1
unit	https://builds.apache.org/job/PreCommit-HDFS-Build/24966/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt
Test Results	https://builds.apache.org/job/PreCommit-HDFS-Build/24966/testReport/
Max. process+thread count	3939 (vs. ulimit of 10000)
modules	C: hadoop-hdfs-project/hadoop-hdfs U: hadoop-hdfs-project/hadoop-hdfs
Console output	https://builds.apache.org/job/PreCommit-HDFS-Build/24966/console
Powered by	Apache Yetus 0.8.0 http://yetus.apache.org

- Surendra Singh Lilhore added a comment 21/Sep/18 03:28
 - +1 for latest patch..
- ▼ Brahma Reddy Battula added a comment 26/Sep/18 18:33

Committed to trunk, branch-3.1 and branch-3.0. surendrasingh thanks for review.

O Hudson added a comment - 26/Sep/18 18:48

SUCCESS: Integrated in Jenkins build Hadoop-trunk-Commit #15063 (See https://builds.apache.org/job/Hadoop-trunk-Commit/15063/)

HDFS 13840. RBW Blocks which are having less GS should be added to (brahma: rev e0ff8e2c10f38298b81624df1e62743ac171f18d)

- (edit) hadoop-hdfs-project/hadoop-hdfs/server/blockmanagement/TestRBWBlockInvalidation.java
- (edit) hadoop-hdfs-project/hadoop-hdfs/src/main/java/org/apache/hadoop/hdfs/server/blockmanagement/BlockManager.java
- (edit) hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/MiniDFSCluster.java

• (edit) hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/server/namenode/TestAddStripedBlocks.java

~	Penn	ما

Assignee:

Brahma Reddy Battula

Reporter:

Brahma Reddy Battula

Votes:

1 Vote for this issue

Watchers:

8 Start watching this issue

Dates

Created:

21/Aug/18 12:27

Updated:

26/Sep/18 18:48

Resolved:

26/Sep/18 18:33