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Hadoop HDFS / HDFS-8025

# Addendum fix for HDFS-3087 Decomissioning on NN restart can complete without blocks being replicated

#### Details

Type: □ Bug Status: CLOSED

Priority: ♠ Major Resolution: Fixed

Affects Version/s: None Fix Version/s: 2.7.0

Component/s: None Labels: None

## Description

Per discussion with andrew.wang on HDFS-7411, we should include HDFS-3087 and enhance the unit test.

#### Attachments

HDFS-8025.patch	4 kB	30/Mar/15 23:25
HDFS-8025-2.patch	4 kB	03/Apr/15 04:35

#### Activity

Ming Ma added a comment - 30/Mar/15 23:25

The reason unit test "TestDecommission#testDecommissionWithNamenodeRestart" can pass because blockReport was processed earlier than DecommissonManager thread. Thus the test case doesn't verify the scenario.

The patch added checkBlockReportReceived back. It also improves unit tests in the following ways. a) increase the blockreport interval and make it more likely for DecommissonManager thread to process the node before blockReport is processed. b) Check if the blocks are properly replicated right after node is transitioned to Decommissioned. There is no need to wait for the block replication given nodes should only be transitioned to Decommissioned after block are properly replicated.

- O Hadoop QA added a comment 31/Mar/15 03:36
  - -1 overall. Here are the results of testing the latest attachment http://issues.apache.org/jira/secure/attachment/12708258/HDFS-8025.patch against trunk revision 1a495fb.
  - +1 @author. The patch does not contain any @author tags.
  - +1 tests included. The patch appears to include 1 new or modified test files.
  - +1 javac. The applied patch does not increase the total number of javac compiler warnings.
  - +1 javadoc. There were no new javadoc warning messages.
  - +1 eclipse:eclipse. The patch built with eclipse:eclipse.
  - +1 findbugs. The patch does not introduce any new Findbugs (version 2.0.3) warnings.
  - +1 release audit. The applied patch does not increase the total number of release audit warnings.
  - -1 core tests. The patch failed these unit tests in hadoop-hdfs-project/hadoop-hdfs:

org. apache. hadoop. hdfs. Test Encryption Zones With KMS

The following test timeouts occurred in hadoop-hdfs-project/hadoop-hdfs:

org.apache.hadoop.hdfs.server.blockmanagement.TestDatanodeManager

Test results: https://builds.apache.org/job/PreCommit-HDFS-Build/10118//testReport/Console output: https://builds.apache.org/job/PreCommit-HDFS-Build/10118//console

This message is automatically generated.

➤ O Andrew Wang added a comment - 01/Apr/15 20:01

Hey Ming, thanks for working on this. Did you consider putting the new check in BlockManager#isNodeHealthyForDecommission? This is a better home for this check (since this does relate to node health), and I think it should be approximately as efficient since a node will have 0 blocks before its FBR.

It would also be good to add some logging for this case, since a perpetual complaint about decom is the lack of visibility as to why a node is stuck.

Ming Ma added a comment - 03/Apr/15 04:35

Thanks Andrew. Here is the updated patch with your suggestions.

- ▼ Hadoop QA added a comment 03/Apr/15 08:15
  - -1 overall. Here are the results of testing the latest attachment http://issues.apache.org/jira/secure/attachment/12709165/HDFS-8025-2.patch against trunk revision 72f6bd4.
  - +1 @author. The patch does not contain any @author tags.
  - +1 tests included. The patch appears to include 1 new or modified test files.
  - +1 javac. The applied patch does not increase the total number of javac compiler warnings.
  - +1 javadoc. There were no new javadoc warning messages.
  - +1 eclipse:eclipse. The patch built with eclipse:eclipse.
  - +1 findbugs. The patch does not introduce any new Findbugs (version 2.0.3) warnings.
  - +1 release audit. The applied patch does not increase the total number of release audit warnings.
  - -1 core tests. The patch failed these unit tests in hadoop-hdfs-project/hadoop-hdfs:

org.apache.hadoop.hdfs.server.blockmanagement.TestDatanodeManager org.apache.hadoop.hdfs.server.namenode.ha.TestRetryCacheWithHA

Test results: https://builds.apache.org/job/PreCommit-HDFS-Build/10170//testReport/Console output: https://builds.apache.org/job/PreCommit-HDFS-Build/10170//console

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- ▼ Andrew Wang added a comment 08/Apr/15 23:06
  - +1 LGTM, will commit shortly
- Andrew Wang added a comment 08/Apr/15 23:10

Committed to trunk and branch-2, thanks Ming.

Hudson added a comment - 08/Apr/15 23:30

FAILURE: Integrated in Hadoop-trunk-Commit #7540 (See https://builds.apache.org/job/Hadoop-trunk-Commit/7540/)

HDFS-8025. Addendum fix for HDFS-3087 Decomissioning on NN restart can complete without blocks being replicated. Contributed by Ming Ma. (wang: rev 5a540c3d3107199f4632e2ad7ee8ff913b107a04)

- hadoop-hdfs-project/hadoop-hdfs/CHANGES.txt
- hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/TestDecommission.java
- hadoop-hdfs-project/hadoop-hdfs/src/main/java/org/apache/hadoop/hdfs/server/blockmanagement/BlockManager.java
- Hudson added a comment 09/Apr/15 10:41

FAILURE: Integrated in Hadoop-Yarn-trunk-Java8 #158 (See https://builds.apache.org/job/Hadoop-Yarn-trunk-Java8/158/)

HDFS 8025. Addendum fix for HDFS 3087 Decomissioning on NN restart can complete without blocks being replicated. Contributed by Ming Ma. (wang: rev 5a540c3d3107199f4632e2ad7ee8ff913b107a04)

- hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/TestDecommission.java
- hadoop-hdfs-project/hadoop-hdfs/CHANGES.txt

• hadoop-hdfs-project/hadoop-hdfs/src/main/java/org/apache/hadoop/hdfs/server/blockmanagement/BlockManager.java

✓ ○ Hudson added a comment - 09/Apr/15 11:34

FAILURE: Integrated in Hadoop-Hdfs-trunk #2090 (See https://builds.apache.org/job/Hadoop-Hdfs-trunk/2090/)

HDFS-8025. Addendum fix for HDFS-3087 Decomissioning on NN restart can complete without blocks being replicated. Contributed by Ming Ma. (wang: rev 5a540c3d3107199f4632e2ad7ee8ff913b107a04)

- hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/TestDecommission.java
- hadoop-hdfs-project/hadoop-hdfs/src/main/java/org/apache/hadoop/hdfs/server/blockmanagement/BlockManager.java
- hadoop-hdfs-project/hadoop-hdfs/CHANGES.txt
- ✓ Hudson added a comment 09/Apr/15 11:35

FAILURE: Integrated in Hadoop-Hdfs-trunk-Java8 #149 (See https://builds.apache.org/job/Hadoop-Hdfs-trunk-Java8/149/)

HDFS 8025. Addendum fix for HDFS 3087 Decomissioning on NN restart can complete without blocks being replicated. Contributed by Ming Ma. (wang: rev 5a540c3d3107199f4632e2ad7ee8ff913b107a04)

- hadoop-hdfs-project/hadoop-hdfs/src/main/java/org/apache/hadoop/hdfs/server/blockmanagement/BlockManager.java
- hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/TestDecommission.java
- hadoop-hdfs-project/hadoop-hdfs/CHANGES.txt
- Hudson added a comment 09/Apr/15 11:56

SUCCESS: Integrated in Hadoop-Yarn-trunk #892 (See https://builds.apache.org/job/Hadoop-Yarn-trunk/892/)

HDFS 8025. Addendum fix for HDFS 3087 Decomissioning on NN restart can complete without blocks being replicated. Contributed by Ming Ma. (wang: rev 5a540c3d3107199f4632e2ad7ee8ff913b107a04)

- hadoop-hdfs-project/hadoop-hdfs/src/main/java/org/apache/hadoop/hdfs/server/blockmanagement/BlockManager.java
- hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/TestDecommission.java
- hadoop-hdfs-project/hadoop-hdfs/CHANGES.txt
- Kihwal Lee added a comment 09/Apr/15 15:03

I put this in branch-2.7.

✓ ○ Hudson added a comment - 09/Apr/15 18:14

FAILURE: Integrated in Hadoop-Mapreduce-trunk-Java8 #159 (See https://builds.apache.org/job/Hadoop-Mapreduce-trunk-Java8/159/)

HDFS 8025. Addendum fix for HDFS 3087 Decomissioning on NN restart can complete without blocks being replicated. Contributed by Ming Ma. (wang: rev 5a540c3d3107199f4632e2ad7ee8ff913b107a04)

- $\bullet \quad \text{hadoop-hdfs-project/hadoop-hdfs/src/main/java/org/apache/hadoop/hdfs/server/blockmanagement/BlockManager.java} \\$
- hadoop-hdfs-project/hadoop-hdfs/CHANGES.txt
- hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/TestDecommission.java
- ✓ O Hudson added a comment 09/Apr/15 18:32

FAILURE: Integrated in Hadoop-Mapreduce-trunk #2108 (See https://builds.apache.org/job/Hadoop-Mapreduce-trunk/2108/) HDFS-8025. Addendum fix for HDFS-3087 Decomissioning on NN restart can complete without blocks being replicated. Contributed by Ming Ma. (wang: rev 5a540c3d3107199f4632e2ad7ee8ff913b107a04)

- hadoop-hdfs-project/hadoop-hdfs/src/test/java/org/apache/hadoop/hdfs/TestDecommission.java
- hadoop-hdfs-project/hadoop-hdfs/src/main/java/org/apache/hadoop/hdfs/server/blockmanagement/BlockManager.java
- hadoop-hdfs-project/hadoop-hdfs/CHANGES.txt
- Ming Ma added a comment 13/Apr/15 15:14

Thanks Andrew and Kihwal.

## People

Assignee:



Reporter:



Votes:

• Vote for this issue

Watchers:

5 Start watching this issue

# Dates

Created:

30/Mar/15 22:06

Updated:

24/Apr/15 23:22

Resolved:

08/Apr/15 23:10