



Hadoop HDFS / HDFS-15809

# DeadNodeDetector doesn't remove live nodes from dead node set.

Details

Type:	Bug	Status:	<b>RESOLVED</b>
Priority:	Major	Resolution:	Fixed
Affects Version/s:	None	Fix Version/s:	3.3.1, 3.4.0
Component/s:	None		
Labels:	None		

Description

We found the dead node detector might never remove the alive nodes from the dead node set in a big cluster. For example:

- 200 nodes are added to the dead node set by DeadNodeDetector.
- DeadNodeDetector#checkDeadNodes() adds 100 nodes to the deadNodesProbeQueue because the queue limited length is 100.
- The probe threads start working and probe 30 nodes.
- DeadNodeDetector#checkDeadNodes() is scheduled again. It iterates the dead node set and adds 30 nodes to the deadNodesProbeQueue. But the order is the same as the last time. So the 30 nodes that has already been probed are added to the queue again.
- Repeat 3 and 4. But we always add the first 30 nodes from the dead set. If they are all dead then the live nodes behind them could never be recovered.

Attachments

<a href="#">HDFS-15809.001.patch</a>	17 kB	01/Feb/21 13:40
<a href="#">HDFS-15809.002.patch</a>	17 kB	19/Feb/21 11:37
<a href="#">HDFS-15809.003.patch</a>	18 kB	20/Feb/21 03:19
<a href="#">HDFS-15809.004.patch</a>	15 kB	24/Feb/21 02:39
<a href="#">HDFS-15809.005.patch</a>	15 kB	06/Mar/21 10:41
<a href="#">HDFS-15809.006.patch</a>	15 kB	06/Mar/21 16:03
<a href="#">HDFS-15809.007.patch</a>	15 kB	07/Mar/21 10:49

Issue Links

relates to

<a href="#">HDFS-13571</a> Deadnode detection	<b>RESOLVED</b>
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Activity

- Jinglun added a comment - 01/Feb/21 13:40
- Hi leosun08, could you help reviewing this, thanks !
- Hadoop QA added a comment - 01/Feb/21 18:39

-1 overall

Vote	Subsystem	Runtime	Logfile	Comment
	...	...	...	...



U	reexec	0m 55s		Docker mode activated.
			<b>Prechecks</b>	
+1	dupname	0m 0s		No case conflicting files found.
+1	@author	0m 0s		The patch does not contain any @author tags.
+1		0m 0s	test4tests	The patch appears to include 1 new or modified test files.
			<b>trunk Compile Tests</b>	
0	mvndep	0m 30s		Maven dependency ordering for branch
+1	mvninstall	19m 21s		trunk passed
+1	compile	4m 48s		trunk passed with JDK Ubuntu-11.0.9.1+1-Ubuntu-0ubuntu1.20.04
+1	compile	4m 31s		trunk passed with JDK Private Build-1.8.0_275-8u275-b01-0ubuntu1~20.04-b01
+1	checkstyle	1m 11s		trunk passed
+1	mvnsite	2m 16s		trunk passed
+1	shadedclient	16m 24s		branch has no errors when building and testing our client artifacts.
+1	javadoc	1m 34s		trunk passed with JDK Ubuntu-11.0.9.1+1-Ubuntu-0ubuntu1.20.04
+1	javadoc	2m 3s		trunk passed with JDK Private Build-1.8.0_275-8u275-b01-0ubuntu1~20.04-b01
0	spotbugs	3m 1s		Used deprecated FindBugs config; considering switching to SpotBugs.
+1	findbugs	5m 22s		trunk passed
			<b>Patch Compile Tests</b>	
0	mvndep	0m 27s		Maven dependency ordering for patch
+1	mvninstall	1m 58s		the patch passed
+1	compile	4m 37s		the patch passed with JDK Ubuntu-11.0.9.1+1-Ubuntu-0ubuntu1.20.04
+1	javac	4m 37s		the patch passed
+1	compile	4m 19s		the patch passed with JDK Private Build-1.8.0_275-8u275-b01-0ubuntu1~20.04-b01
+1	javac	4m 19s		the patch passed
-0	checkstyle	1m 5s	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/444/artifact/out/diff-checkstyle-hadoop-hdfs-project.txt">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/444/artifact/out/diff-checkstyle-hadoop-hdfs-project.txt</a>	hadoop-hdfs-project: The patch generated 3 new + 30 unchanged - 0 fixed = 33 total (was 30)
+1	mvnsite	2m 7s		the patch passed
+1	whitespace	0m 0s		The patch has no whitespace issues.
+1	shadedclient	13m 44s		patch has no errors when building and testing our client artifacts.
+1	javadoc	1m 23s		the patch passed with JDK Ubuntu-11.0.9.1+1-Ubuntu-0ubuntu1.20.04
+1	javadoc	1m 53s		the patch passed with JDK Private Build-1.8.0_275-8u275-b01-0ubuntu1~20.04-b01
+1	findbugs	5m 44s		the patch passed
			<b>Other Tests</b>	

+1	unit	2m 18s		hadoop-hdfs-client in the patch passed.
-1	unit	192m 0s	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/444/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/444/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt</a>	hadoop-hdfs in the patch passed.
+1	asflicense	0m 44s		The patch does not generate ASF License warnings.
		290m 57s		

Reason	Tests
Failed junit tests	hadoop.hdfs.server.blockmanagement.TestUnderReplicatedBlocks
	hadoop.tools.TestHdfsConfigFields
	hadoop.hdfs.server.namenode.ha.TestDFSUpgradeWithHA

Subsystem	Report/Notes
Docker	ClientAPI=1.41 ServerAPI=1.41 base: <a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/444/artifact/out/Dockerfile">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/444/artifact/out/Dockerfile</a>
JIRA Issue	<a href="#">HDFS-15809</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/13019787/HDFS-15809.001.patch">https://issues.apache.org/jira/secure/attachment/13019787/HDFS-15809.001.patch</a>
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle
uname	Linux a26f9d54e612 4.15.0-112-generic #113-Ubuntu SMP Thu Jul 9 23:41:39 UTC 2020 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	personality/hadoop.sh
git revision	trunk / 115623a6ee4
Default Java	Private Build-1.8.0_275-8u275-b01-0ubuntu1~20.04-b01
Multi-JDK versions	/usr/lib/jvm/java-11-openjdk-amd64:Ubuntu-11.0.9.1+1-Ubuntu-0ubuntu1.20.04 /usr/lib/jvm/java-8-openjdk-amd64:Private Build-1.8.0_275-8u275-b01-0ubuntu1~20.04-b01
Test Results	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/444/testReport/">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/444/testReport/</a>
Max. process+thread count	2988 (vs. ulimit of 5500)
modules	C: hadoop-hdfs-project/hadoop-hdfs-client hadoop-hdfs-project/hadoop-hdfs U: hadoop-hdfs-project
Console output	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/444/console">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/444/console</a>
versions	git=2.25.1 maven=3.6.3 findbugs=4.0.6
Powered by	Apache Yetus 0.13.0-SNAPSHOT <a href="https://yetus.apache.org">https://yetus.apache.org</a>

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  **Lisheng Sun** added a comment - 11/Feb/21 06:59

hi [LiJinglun](#) for catching this scene.

DeadNodeDetector#checkDeadNodes() is scheduled again. It iterates the dead node set and adds 30 nodes to the deadNodesProbeQueue. But the order is the same as the last time. So the 30 nodes that has already been probed are added to the queue again.

It may happen only when a large number of nodes hang up in a very large cluster.  
But the probability of this situation should very small. Because of the background thread has been detecting the deadnode node, not just when call checkdeadnode.

The solution I thought of is:

- 1、 Firstly shuffle all deadnodes in deadnode , poll fixed number of nodes into deadNodesProbeQueue. This can avoid taking the same node every time
- 2、 Adjust the queue size according to the cluster size.

I don't understand your solution about this issue. Could you describe your solution first? Thank you.

👇  **Jinglun** added a comment - 19/Feb/21 03:10 - edited

Hi [leosun08](#), thanks you comments. The solution in v01 introduces a new deduplicated queue. It won't accept duplicated nodes being added. The size of the queue is not fixed too so all the dead nodes could be added to the deduplicated queue. Thus the situation of duplicated dead nodes being repeatedly added to the probe queue won't happen anymore.


The queue itself is deduplicated so we don't need to worry the queue size explosion. The size is no greater than the size of datanodes.

Shuffle is a good idea and is a much simpler way. But I think the deduplicated way is more efficiency because there is no duplicated probe.

Adjust the queue size won't fix the problem because the queue accept duplicated nodes. Even the queue size is 100000 it could still be filled up with the first 30 nodes.

👇  **Jinglun** added a comment - 19/Feb/21 11:38

I haven't deal with the checkstyle complain and it is out of date now(cry). Re-upload v02 to trigger the jenkins.

👇  **Hadoop QA** added a comment - 19/Feb/21 16:43

 **-1 overall**

Vote	Subsystem	Runtime	Logfile	Comment
0	reexec	0m 49s		Docker mode activated.
			Prechecks	
+1	dupname	0m 0s		No case conflicting files found.
+1	@author	0m 0s		The patch does not contain any @author tags.
+1		0m 0s	test4tests	The patch appears to include 1 new or modified test files.
			trunk Compile Tests	
0	mvndep	1m 45s		Maven dependency ordering for branch
+1	mvninstall	22m 36s		trunk passed
+1	compile	5m 31s		trunk passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	compile	4m 53s		trunk passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	checkstyle	1m 13s		trunk passed
+1	mvnsite	2m 17s		trunk passed
+1	shadedclient	19m 55s		branch has no errors when building and testing our client artifacts.
+1	javadoc	1m 42s		trunk passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	javadoc	2m 13s		trunk passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08

0	spotbugs	3m 26s		Used deprecated FindBugs config; considering switching to SpotBugs.
+1	findbugs	6m 4s		trunk passed
			<b>Patch Compile Tests</b>	
0	mvndep	0m 26s		Maven dependency ordering for patch
+1	mvninstall	2m 5s		the patch passed
+1	compile	4m 57s		the patch passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	javac	4m 57s		the patch passed
+1	compile	4m 50s		the patch passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	javac	4m 50s		the patch passed
-0	checkstyle	1m 16s	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/485/artifact/out/diff-checkstyle-hadoop-hdfs-project.txt">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/485/artifact/out/diff-checkstyle-hadoop-hdfs-project.txt</a>	hadoop-hdfs-project: The patch generated 3 new + 30 unchanged - 0 fixed = 33 total (was 30)
+1	mvnsite	2m 12s		the patch passed
+1	whitespace	0m 0s		The patch has no whitespace issues.
+1	shadedclient	13m 37s		patch has no errors when building and testing our client artifacts.
+1	javadoc	1m 28s		the patch passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	javadoc	2m 2s		the patch passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	findbugs	6m 10s		the patch passed
			<b>Other Tests</b>	
+1	unit	2m 21s		hadoop-hdfs-client in the patch passed.
-1	unit	194m 12s	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/485/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/485/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt</a>	hadoop-hdfs in the patch passed.
+1	asflicense	0m 44s		The patch does not generate ASF License warnings.
		305m 12s		

Reason	Tests
Failed junit tests	hadoop.tools.TestHdfsConfigFields

Subsystem	Report/Notes
Docker	ClientAPI=1.41 ServerAPI=1.41 base: <a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/485/artifact/out/Dockerfile">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/485/artifact/out/Dockerfile</a>
JIRA Issue	<a href="#">HDFS-15809</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/13020695/HDFS-15809.002.patch">https://issues.apache.org/jira/secure/attachment/13020695/HDFS-15809.002.patch</a>
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle
uname	Linux 2224b030ef2a 4.15.0-112-generic #113-Ubuntu SMP Thu Jul 9 23:41:39 UTC 2020 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven

Personality	personality/hadoop.sh
git revision	trunk / 4383726d194
Default Java	Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
Multi-JDK versions	/usr/lib/jvm/java-11-openjdk-amd64:Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04 /usr/lib/jvm/java-8-openjdk-amd64:Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
Test Results	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/485/testReport/">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/485/testReport/</a>
Max. process+thread count	3173 (vs. ulimit of 5500)
modules	C: hadoop-hdfs-project/hadoop-hdfs-client hadoop-hdfs-project/hadoop-hdfs U: hadoop-hdfs-project
Console output	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/485/console">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/485/console</a>
versions	git=2.25.1 maven=3.6.3 findbugs=4.0.6
Powered by	Apache Yetus 0.13.0-SNAPSHOT <a href="https://yetus.apache.org">https://yetus.apache.org</a>

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👤 Jinglun added a comment - 20/Feb/21 03:20

Submit v03 fix checkstyle and unit tests.

👤 Hadoop QA added a comment - 20/Feb/21 10:00


✅ +1 overall

Vote	Subsystem	Runtime	Logfile	Comment
0	reexec	29m 5s		<a href="#">Docker mode activated.</a>
			<b>Prechecks</b>	
+1	dupname	0m 0s		No case conflicting files found.
+1	@author	0m 0s		The patch does not contain any @author tags.
+1		0m 0s	test4tests	The patch appears to include 1 new or modified test files.
			<b>trunk Compile Tests</b>	
0	mvndep	14m 34s		<a href="#">Maven dependency ordering for branch</a>
+1	mvninstall	23m 45s		trunk passed
+1	compile	5m 26s		trunk passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	compile	5m 10s		trunk passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	checkstyle	1m 20s		trunk passed
+1	mvnsite	2m 26s		trunk passed
+1	shadedclient	19m 7s		branch has no errors when building and testing our client artifacts.
+1	javadoc	1m 38s		trunk passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	javadoc	2m 11s		trunk passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
0	spotbugs	3m 23s		<a href="#">Used deprecated FindBugs config; considering switching to SpotBugs.</a>
+1	findbugs	6m 3s		trunk passed
			<b>Patch Compile Tests</b>	
0	mvndep	0m 26s		<a href="#">Maven dependency ordering for patch</a>
+1	mvninstall	2m 7s		the patch passed
+1	compile	5m 22s		the patch passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04

+1	javac	5m 22s		the patch passed
+1	compile	4m 54s		the patch passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	javac	4m 54s		the patch passed
+1	checkstyle	1m 12s		the patch passed
+1	mvnsite	2m 11s		the patch passed
+1	whitespace	0m 0s		The patch has no whitespace issues.
+1	xml	0m 1s		The patch has no ill-formed XML file.
+1	shadedclient	13m 19s		patch has no errors when building and testing our client artifacts.
+1	javadoc	1m 28s		the patch passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	javadoc	1m 52s		the patch passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	findbugs	5m 42s		the patch passed
			<b>Other Tests</b>	
+1	unit	2m 19s		hadoop-hdfs-client in the patch passed.
+1	unit	239m 26s		hadoop-hdfs in the patch passed.
+1	asflicense	0m 45s		The patch does not generate ASF License warnings.
		391m 21s		

Subsystem	Report/Notes
Docker	ClientAPI=1.41 ServerAPI=1.41 base: <a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/489/artifact/out/Dockerfile">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/489/artifact/out/Dockerfile</a>
JIRA Issue	<a href="#">HDFS-15809</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/13020740/HDFS-15809.003.patch">https://issues.apache.org/jira/secure/attachment/13020740/HDFS-15809.003.patch</a>
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux e537d23fed54 4.15.0-65-generic #74-Ubuntu SMP Tue Sep 17 17:06:04 UTC 2019 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	personality/hadoop.sh
git revision	trunk / 4891e68c2b2
Default Java	Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
Multi-JDK versions	/usr/lib/jvm/java-11-openjdk-amd64:Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04 /usr/lib/jvm/java-8-openjdk-amd64:Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
Test Results	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/489/testReport/">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/489/testReport/</a>
Max. process+thread count	3053 (vs. ulimit of 5500)
modules	C: hadoop-hdfs-project/hadoop-hdfs-client hadoop-hdfs-project/hadoop-hdfs U: hadoop-hdfs-project
Console output	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/489/console">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/489/console</a>
versions	git=2.25.1 maven=3.6.3 findbugs=4.0.6
Powered by	Apache Yetus 0.13.0-SNAPSHOT <a href="https://yetus.apache.org">https://yetus.apache.org</a>

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▼  Lisheng Sun added a comment - 21/Feb/21 10:50

Hi LiJinglun


I understand the problem you want to solve is that the datanode in deadNodesProbeQueue is put in deadNodesProbeQueue.

I think that the type of deadNodesProbeQueue is changed to LinkedHashSet solved this problem. No need to reconstruct a deduplication queue.

Please help add a Unit Test that reproduces this problem.

▼  Jinglun added a comment - 24/Feb/21 02:50

Hi leosun08, thanks your comments. Submit v04 using LinkedHashSet. The test case testDeadNodeDetectionDeadNodeProbe can cover the situation. It verifies the whole progress of the deadnodedetector. One node should be first put into suspect queue, then marked as dead and finally probed by the dead queue multi times. In the original implementation the 3 datanodes won't be all dead.

▼  Hadoop QA added a comment - 24/Feb/21 07:42

 -1 overall

Vote	Subsystem	Runtime	Logfile	Comment
0	reexec	0m 41s		Docker mode activated.
			<b>Prechecks</b>	
+1	dupname	0m 0s		No case conflicting files found.
+1	@author	0m 0s		The patch does not contain any @author tags.
+1		0m 0s	test4tests	The patch appears to include 1 new or modified test files.
			<b>trunk Compile Tests</b>	
0	mvndep	2m 12s		Maven dependency ordering for branch
+1	mvninstall	19m 43s		trunk passed
+1	compile	4m 46s		trunk passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	compile	4m 27s		trunk passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	checkstyle	1m 12s		trunk passed
+1	mvnsite	2m 14s		trunk passed
+1	shadedclient	16m 33s		branch has no errors when building and testing our client artifacts.
+1	javadoc	1m 33s		trunk passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	javadoc	2m 6s		trunk passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
0	spotbugs	3m 3s		Used deprecated FindBugs config; considering switching to SpotBugs.
+1	findbugs	5m 25s		trunk passed
			<b>Patch Compile Tests</b>	
0	mvndep	0m 28s		Maven dependency ordering for patch
+1	mvninstall	1m 58s		the patch passed




+1	compile	4m 37s		the patch passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	javac	4m 37s		the patch passed
+1	compile	4m 19s		the patch passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	javac	4m 19s		the patch passed
+1	checkstyle	1m 3s		the patch passed
+1	mvnsize	2m 2s		the patch passed
+1	whitespace	0m 1s		The patch has no whitespace issues.
+1	xml	0m 1s		The patch has no ill-formed XML file.
+1	shadedclient	12m 42s		patch has no errors when building and testing our client artifacts.
+1	javadoc	1m 25s		the patch passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	javadoc	1m 56s		the patch passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	findbugs	5m 32s		the patch passed
			<b>Other Tests</b>	
+1	unit	2m 23s		hadoop-hdfs-client in the patch passed.
-1	unit	193m 20s	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/496/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/496/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt</a>	hadoop-hdfs in the patch passed.
+1	asflicense	1m 7s		The patch does not generate ASF License warnings.
		293m 51s		

Reason	Tests
Failed junit tests	hadoop.hdfs.server.blockmanagement.TestUnderReplicatedBlocks
	hadoop.hdfs.server.diskbalancer.command.TestDiskBalancerCommand
	hadoop.hdfs.server.balancer.TestBalancerWithHNameNodes
	hadoop.hdfs.server.datanode.fsdataset.impl.TestFsDatasetImpl
	hadoop.hdfs.server.balancer.TestBalancer

Subsystem	Report/Notes
Docker	ClientAPI=1.41 ServerAPI=1.41 base: <a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/496/artifact/out/Dockerfile">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/496/artifact/out/Dockerfile</a>
JIRA Issue	<a href="#">HDFS-15809</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/13021085/HDFS-15809.004.patch">https://issues.apache.org/jira/secure/attachment/13021085/HDFS-15809.004.patch</a>
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsize unit shadedclient findbugs checkstyle xml
uname	Linux 1317889cbeca 4.15.0-112-generic #113-Ubuntu SMP Thu Jul 9 23:41:39 UTC 2020 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	personality/hadoop.sh
git revision	trunk / e9a3c2950e8

Default Java	Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
Multi-JDK versions	/usr/lib/jvm/java-11-openjdk-amd64:Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04 /usr/lib/jvm/java-8-openjdk-amd64:Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
Test Results	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/496/testReport/">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/496/testReport/</a>
Max. process+thread count	3924 (vs. ulimit of 5500)
modules	C: hadoop-hdfs-project/hadoop-hdfs-client hadoop-hdfs-project/hadoop-hdfs U: hadoop-hdfs-project
Console output	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/496/console">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/496/console</a>
versions	git=2.25.1 maven=3.6.3 findbugs=4.0.6
Powered by	Apache Yetus 0.13.0-SNAPSHOT <a href="https://yetus.apache.org">https://yetus.apache.org</a>

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▼  Lisheng Sun added a comment - 27/Feb/21 03:49

Hi LiJinglun

I think it is more appropriate to use LinkedHashSet. Its purpose is to ensure that the elements are unique and orderly.  
The safe mode is implemented by Collections.synchronized\*\*\*().

▼  Jinglun added a comment - 06/Mar/21 10:50 - edited

After a discussion with leosun08, we decide to abandon the Collections.synchronizedSet(new LinkedHashSet<>()) plan because the interface is not friendly and makes the patch more complicated. Also it makes the probe queue hard to spy(set wrapped by synchronized would be final).  
Thanks leosun08's suggestions for design and unit tests. Submit v05 fixing unit test.

▼  Hadoop QA added a comment - 06/Mar/21 16:44

 -1 overall

Vote	Subsystem	Runtime	Logfile	Comment
0	reexec	3m 29s		Docker mode activated.
			Prechecks	
+1	dupname	0m 0s		No case conflicting files found.
+1	@author	0m 0s		The patch does not contain any @author tags.
+1		0m 0s	test4tests	The patch appears to include 1 new or modified test files.
			trunk Compile Tests	
0	mvndep	14m 8s		Maven dependency ordering for branch
+1	mvninstall	24m 39s		trunk passed
+1	compile	5m 25s		trunk passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	compile	4m 54s		trunk passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	checkstyle	1m 18s		trunk passed
+1	mvnsite	2m 25s		trunk passed
+1	shadedclient	20m 4s		branch has no errors when building and testing our client artifacts.


+1	javadoc	1m 42s		trunk passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	javadoc	2m 5s		trunk passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
0	spotbugs	3m 35s		Used deprecated FindBugs config; considering switching to SpotBugs.
+1	findbugs	6m 28s		trunk passed
			<b>Patch Compile Tests</b>	
0	mvndep	0m 22s		Maven dependency ordering for patch
+1	mvninstall	2m 7s		the patch passed
+1	compile	5m 57s		the patch passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	javac	5m 57s		the patch passed
+1	compile	6m 3s		the patch passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	javac	6m 3s		the patch passed
+1	checkstyle	1m 15s		the patch passed
+1	mvnsite	2m 14s		the patch passed
+1	whitespace	0m 0s		The patch has no whitespace issues.
+1	xml	0m 2s		The patch has no ill-formed XML file.
+1	shadedclient	15m 39s		patch has no errors when building and testing our client artifacts.
+1	javadoc	1m 33s		the patch passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	javadoc	1m 58s		the patch passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	findbugs	5m 58s		the patch passed
			<b>Other Tests</b>	
+1	unit	2m 13s		hadoop-hdfs-client in the patch passed.
-1	unit	223m 53s	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/518/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/518/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt</a>	hadoop-hdfs in the patch passed.
+1	asflicense	0m 44s		The patch does not generate ASF License warnings.
		355m 54s		

Reason	Tests
Failed junit tests	hadoop.hdfs.server.blockmanagement.TestBlockStatsMXBean

Subsystem	Report/Notes
Docker	ClientAPI=1.41 ServerAPI=1.41 base: <a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/518/artifact/out/Dockerfile">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/518/artifact/out/Dockerfile</a>
JIRA Issue	<a href="#">HDFS-15809</a>

JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/13021742/HDFS-15809.005.patch">https://issues.apache.org/jira/secure/attachment/13021742/HDFS-15809.005.patch</a>
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux 78f223f9d84b 4.15.0-136-generic #140-Ubuntu SMP Thu Jan 28 05:20:47 UTC 2021 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	personality/hadoop.sh
git revision	trunk / c6b30a59dd2
Default Java	Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
Multi-JDK versions	/usr/lib/jvm/java-11-openjdk-amd64:Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04 /usr/lib/jvm/java-8-openjdk-amd64:Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
Test Results	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/518/testReport/">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/518/testReport/</a>
Max. process+thread count	2598 (vs. ulimit of 5500)
modules	C: hadoop-hdfs-project/hadoop-hdfs-client hadoop-hdfs-project/hadoop-hdfs U: hadoop-hdfs-project
Console output	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/518/console">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/518/console</a>
versions	git=2.25.1 maven=3.6.3 findbugs=4.0.6
Powered by	Apache Yetus 0.13.0-SNAPSHOT <a href="https://yetus.apache.org">https://yetus.apache.org</a>

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▼  **Hadoop QA** added a comment - 06/Mar/21 22:42

 **-1 overall**

Vote	Subsystem	Runtime	Logfile	Comment
0	reexec	31m 8s		<a href="#">Docker mode activated.</a>
			<b>Prechecks</b>	
+1	dupname	0m 0s		No case conflicting files found.
+1	@author	0m 0s		The patch does not contain any @author tags.
+1		0m 0s	test4tests	The patch appears to include 1 new or modified test files.
			<b>trunk Compile Tests</b>	
0	mvndep	2m 40s		<a href="#">Maven dependency ordering for branch</a>
+1	mvninstall	27m 34s		trunk passed
+1	compile	6m 34s		trunk passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	compile	5m 39s		trunk passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	checkstyle	1m 29s		trunk passed
+1	mvnsite	2m 43s		trunk passed
+1	shadedclient	21m 17s		branch has no errors when building and testing our client artifacts.
+1	javadoc	1m 45s		trunk passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	javadoc	2m 28s		trunk passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08


0	spotbugs	3m 51s		Used deprecated FindBugs config; considering switching to SpotBugs.
+1	findbugs	6m 51s		trunk passed
			<b>Patch Compile Tests</b>	
0	mvndep	0m 24s		Maven dependency ordering for patch
+1	mvninstall	2m 20s		the patch passed
+1	compile	6m 11s		the patch passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	javac	6m 11s		the patch passed
+1	compile	5m 45s		the patch passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	javac	5m 45s		the patch passed
+1	checkstyle	1m 16s		the patch passed
+1	mvnsite	2m 30s		the patch passed
+1	whitespace	0m 0s		The patch has no whitespace issues.
+1	xml	0m 1s		The patch has no ill-formed XML file.
+1	shadedclient	17m 36s		patch has no errors when building and testing our client artifacts.
+1	javadoc	1m 42s		the patch passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	javadoc	2m 11s		the patch passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	findbugs	6m 56s		the patch passed
			<b>Other Tests</b>	
+1	unit	2m 49s		hadoop-hdfs-client in the patch passed.
-1	unit	233m 48s	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/520/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/520/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt</a>	hadoop-hdfs in the patch passed.
+1	asflicense	0m 42s		The patch does not generate ASF License warnings.
		393m 33s		

Reason	Tests
Failed junit tests	hadoop.hdfs.server.datanode.fsdataset.impl.TestScrLazyPersistFiles
	hadoop.hdfs.TestDFSInotifyEventInputStreamKerberized
	hadoop.hdfs.server.balancer.TestBalancer

Subsystem	Report/Notes
Docker	ClientAPI=1.41 ServerAPI=1.41 base: <a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/520/artifact/out/Dockerfile">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/520/artifact/out/Dockerfile</a>
JIRA Issue	<a href="#">HDFS-15809</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/13021752/HDFS-15809.006.patch">https://issues.apache.org/jira/secure/attachment/13021752/HDFS-15809.006.patch</a>
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml

uname	Linux 40349d9ad439 4.15.0-101-generic #102-Ubuntu SMP Mon May 11 10:07:26 UTC 2020 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	personality/hadoop.sh
git revision	trunk / ef7ab535c55
Default Java	Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
Multi-JDK versions	/usr/lib/jvm/java-11-openjdk-amd64:Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04 /usr/lib/jvm/java-8-openjdk-amd64:Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
Test Results	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/520/testReport/">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/520/testReport/</a>
Max. process+thread count	2316 (vs. ulimit of 5500)
modules	C: hadoop-hdfs-project/hadoop-hdfs-client hadoop-hdfs-project/hadoop-hdfs U: hadoop-hdfs-project
Console output	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/520/console">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/520/console</a>
versions	git=2.25.1 maven=3.6.3 findbugs=4.0.6
Powered by	Apache Yetus 0.13.0-SNAPSHOT <a href="https://yetus.apache.org">https://yetus.apache.org</a>

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▼  Hadoop QA added a comment - 07/Mar/21 15:55

 -1 overall

Vote	Subsystem	Runtime	Logfile	Comment
0	reexec	0m 58s		Docker mode activated.
			<b>Prechecks</b>	
+1	dupname	0m 0s		No case conflicting files found.
+1	@author	0m 0s		The patch does not contain any @author tags.
+1		0m 0s	test4tests	The patch appears to include 1 new or modified test files.
			<b>trunk Compile Tests</b>	
0	mvndep	1m 44s		Maven dependency ordering for branch
+1	mvninstall	20m 44s		trunk passed
+1	compile	5m 27s		trunk passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	compile	4m 40s		trunk passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	checkstyle	1m 16s		trunk passed
+1	mvnsite	2m 16s		trunk passed
+1	shadedclient	17m 3s		branch has no errors when building and testing our client artifacts.
+1	javadoc	1m 32s		trunk passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	javadoc	1m 59s		trunk passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
0	spotbugs	3m 4s		Used deprecated FindBugs config; considering switching to SpotBugs.


+1	findbugs	5m 23s		trunk passed
			<b>Patch Compile Tests</b>	
0	mvndep	0m 24s		Maven dependency ordering for patch
+1	mvninstall	2m 6s		the patch passed
+1	compile	5m 6s		the patch passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	javac	5m 6s		the patch passed
+1	compile	4m 40s		the patch passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	javac	4m 40s		the patch passed
+1	checkstyle	1m 8s		the patch passed
+1	mvnsite	2m 6s		the patch passed
+1	whitespace	0m 0s		The patch has no whitespace issues.
+1	xml	0m 2s		The patch has no ill-formed XML file.
+1	shadedclient	13m 19s		patch has no errors when building and testing our client artifacts.
+1	javadoc	1m 28s		the patch passed with JDK Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04
+1	javadoc	1m 55s		the patch passed with JDK Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
+1	findbugs	5m 54s		the patch passed
			<b>Other Tests</b>	
+1	unit	2m 23s		hadoop-hdfs-client in the patch passed.
-1	unit	192m 47s	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/524/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/524/artifact/out/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt</a>	hadoop-hdfs in the patch passed.
+1	asflicense	0m 43s		The patch does not generate ASF License warnings.
		296m 39s		

Reason	Tests
Failed junit tests	hadoop.hdfs.server.blockmanagement.TestBlockTokenWithDFSStriped

Subsystem	Report/Notes
Docker	ClientAPI=1.41 ServerAPI=1.41 base: <a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/524/artifact/out/Dockerfile">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/524/artifact/out/Dockerfile</a>
JIRA Issue	<a href="#">HDFS-15809</a>
JIRA Patch URL	<a href="https://issues.apache.org/jira/secure/attachment/13021765/HDFS-15809.007.patch">https://issues.apache.org/jira/secure/attachment/13021765/HDFS-15809.007.patch</a>
Optional Tests	dupname asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle xml
uname	Linux 9528bee3a720 4.15.0-112-generic #113-Ubuntu SMP Thu Jul 9 23:41:39 UTC 2020 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	personality/hadoop.sh


git revision	trunk / 9cb51bf1068
Default Java	Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
Multi-JDK versions	/usr/lib/jvm/java-11-openjdk-amd64:Ubuntu-11.0.10+9-Ubuntu-0ubuntu1.20.04 /usr/lib/jvm/java-8-openjdk-amd64:Private Build-1.8.0_282-8u282-b08-0ubuntu1~20.04-b08
Test Results	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/524/testReport/">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/524/testReport/</a>
Max. process+thread count	3398 (vs. ulimit of 5500)
modules	C: hadoop-hdfs-project/hadoop-hdfs-client hadoop-hdfs-project/hadoop-hdfs U: hadoop-hdfs-project
Console output	<a href="https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/524/console">https://ci-hadoop.apache.org/job/PreCommit-HDFS-Build/524/console</a>
versions	git=2.25.1 maven=3.6.3 findbugs=4.0.6
Powered by	Apache Yetus 0.13.0-SNAPSHOT <a href="https://yetus.apache.org">https://yetus.apache.org</a>

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▼  Lisheng Sun added a comment - 08/Mar/21 14:14 - edited

Thank [LiJinglun](#) for your patience work.

LGFM . +1 for [HDFS-15809.007.patch](#) .

▼  Lisheng Sun added a comment - 15/Mar/21 03:39

Committed to trunk.

Thanx [LiJinglun](#) for the contribution.

▼ People

Assignee:

 Jinglun

Reporter:

 Jinglun

Votes:

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▼ Dates

Created:

01/Feb/21 13:38

Updated:

24/Mar/21 06:21

Resolved:

15/Mar/21 03:39