[HDFS-1371](https://www.google.com/url?q=https://issues.apache.org/jira/browse/HDFS-1371&sa=D&source=editors&ust=1751359164497787&usg=AOvVaw3S2CWSuNXb4FSgAUHETK-R)

One bad node can incorrectly flag many files as corrupt

**(1)  Log information**

**(1.1) Roles in this case**

DFSClient (client-side)                NameNode (server-side)            DataNodes (not directly related)

**(1.2) Symptoms**

Description: On our cluster, 12 files were reported as corrupt by fsck even though the replicas on the datanodes were healthy. Turns out that all the replicas (12 files x 3 replicas per file) were reported corrupt from one node(DFSClient). Surprisingly, these files were still readable/accessible from other DFSClient (-get/-cat) without any problems.

Take one such file as an example: /myfile/part-00145.gz blk\_-1426587446408804113\_970819282

Namenode log shows

2010-08-31 10:47:56,258 INFO org.apache.hadoop.hdfs.StateChange: BLOCK NameSystem.addToCorruptReplicasMap: blk\_-1426587446408804113 added as corrupt on ZZ.YY.XX..220:1004 by /ZZ.YY.XX.246

2010-08-31 10:47:56,290 INFO org.apache.hadoop.hdfs.StateChange: BLOCK NameSystem.addToCorruptReplicasMap: blk\_-1426587446408804113 added as corrupt on ZZ.YY.XX..252:1004 by /ZZ.YY.XX.246

2010-08-31 10:47:56,489 INFO org.apache.hadoop.hdfs.StateChange: BLOCK NameSystem.addToCorruptReplicasMap: blk\_-1426587446408804113 added as corrupt on ZZ.YY.XX..107:1004 by /ZZ.YY.XX.246

2010-08-31 10:49:00,508 INFO org.apache.hadoop.hdfs.StateChange: BLOCK NameSystem.addToCorruptReplicasMap: duplicate requested for blk\_-1426587446408804113 to add as corrupt on ZZ.YY.XX.252:1004 by /ZZ.YY.XX.246

2010-08-31 10:49:00,554 INFO org.apache.hadoop.hdfs.StateChange: BLOCK NameSystem.addToCorruptReplicasMap: duplicate requested for blk\_-1426587446408804113 to add as corrupt on ZZ.YY.XX.107:1004 by /ZZ.YY.XX.246

2010-08-31 10:49:03,934 INFO org.apache.hadoop.hdfs.StateChange: BLOCK NameSystem.addToCorruptReplicasMap: duplicate requested for blk\_-1426587446408804113 to add as corrupt on ZZ.YY.XX.220:1004 by /ZZ.YY.XX.246

…

DFSClient on ZZ.YY.XX.246 continue to sends request to NameNode, in order to add three block replicas for blk\_-1426587446408804113 as corrupted.

User Tasklogs(DFSClient) on ZZ.YY.XX.246 shows

[root@ZZ.YY.XX.246 ~]# find /my/mapred/userlogs/ -type f -exec grep 1426587446408804113 \{\} \; -print

org.apache.hadoop.fs.ChecksumException: Checksum error: /blk\_-1426587446408804113:of:/myfile/part-00145.gz at 222720

2010-08-31 10:47:56,256 WARN org.apache.hadoop.hdfs.DFSClient: Found Checksum error for blk\_-1426587446408804113\_970819282 from ZZ.YY.XX.220:1004 at 222720

org.apache.hadoop.fs.ChecksumException: Checksum error: /blk\_-1426587446408804113:of:/myfile/part-00145.gz at 103936

2010-08-31 10:47:56,284 WARN org.apache.hadoop.hdfs.DFSClient: Found Checksum error for blk\_-1426587446408804113\_970819282 from ZZ.YY.XX.252:1004 at 103936

org.apache.hadoop.fs.ChecksumException: Checksum error: /blk\_-1426587446408804113:of:/myfile/part-00145.gz at 250368

2010-08-31 10:47:56,464 WARN org.apache.hadoop.hdfs.DFSClient: Found Checksum error for blk\_-1426587446408804113\_970819282 from ZZ.YY.XX.107:1004 at 250368

2010-08-31 10:47:56,490 INFO org.apache.hadoop.hdfs.DFSClient: Could not obtain block blk\_-1426587446408804113\_970819282 from any node: java.io.IOException: No live nodes contain current block. Will get new block locations from namenode and retry...

The DFSClient on ZZ.YY.XX.246 reports that all the three replicas for blk\_-1426587446408804113 are troubled with checksum error.