[HBase-3722](https://www.google.com/url?q=https://issues.apache.org/jira/browse/HBASE-3722&sa=D&source=editors&ust=1751359851065140&usg=AOvVaw3m6jsOqaqfIaSdeQoliNSS)

A lot of data is lost when name node crashed

**(1)  Log information**

**(1.1) Roles in this case**

ActiveNameNode crashes,  BackupNameNode takes over

Active HMaster splits log for the crashed RegionServer

**(1.2) Symptoms**

Cluster setup:

1. HDFS cluster is HA namenode (ANN (ActiveNameNode) and BackupNN (BackupNameNode))

2. HBASE Version 0.90.1:  Active Hmaster, Backup Hmaster, several Region servers

Operation:

1. ANN crashed and BNN becomed Active (that needs some time)

2. A region server crashed (which is holding the meta table) when Hbase client is putting into data.

3. Hmaster split hlog failed and skip it.

4. BNN had been active and Hmaster had finished processed shutdown event.

5. A lots of data is lost because the region server had crashed.

HMaster log: “There are some split failed logs”

2011-03-22 13:21:55,056 WARN

org.apache.hadoop.hbase.master.LogCleaner: Error while cleaning the logs

java.net.ConnectException: Call to C4C1/157.5.100.1:9000 failed on connection exception: java.net.ConnectException: Connection refused

at org.apache.hadoop.ipc.Client.wrapException(Client.java:844)

at org.apache.hadoop.ipc.Client.call(Client.java:820)

at org.apache.hadoop.ipc.RPC$Invoker.invoke(RPC.java:221)

at $Proxy5.getListing(Unknown Source)

at sun.reflect.GeneratedMethodAccessor9.invoke(Unknown Source)

at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:25)

at java.lang.reflect.Method.invoke(Method.java:597)

at org.apache.hadoop.io.retry.RetryInvocationHandler.invokeMethod(RetryInvocationHandler.java:82)

at org.apache.hadoop.io.retry.RetryInvocationHandler.invoke(RetryInvocationHandler.java:59)

at $Proxy5.getListing(Unknown Source)

at org.apache.hadoop.hdfs.DFSClient.listPaths(DFSClient.java:614)

at org.apache.hadoop.hdfs.DistributedFileSystem.listStatus(DistributedFileSystem.java:252)

at org.apache.hadoop.hbase.master.LogCleaner.chore(LogCleaner.java:121)

at org.apache.hadoop.hbase.Chore.run(Chore.java:66)

at

org.apache.hadoop.hbase.master.LogCleaner.run(LogCleaner.java:154)

Caused by: java.net.ConnectException: Connection refused

at sun.nio.ch.SocketChannelImpl.checkConnect(Native Method)

at sun.nio.ch.SocketChannelImpl.finishConnect(SocketChannelImpl.java:574)

at org.apache.hadoop.net.SocketIOWithTimeout.connect(SocketIOWithTimeout.java:206)

at org.apache.hadoop.net.NetUtils.connect(NetUtils.java:408)

at org.apache.hadoop.ipc.Client$Connection.setupIOstreams(Client.java:332)

at org.apache.hadoop.ipc.Client$Connection.access$2000(Client.java:202)

at org.apache.hadoop.ipc.Client.getConnection(Client.java:943)

at org.apache.hadoop.ipc.Client.call(Client.java:788)

... 13 more

2011-03-22 13:21:56,056 INFO org.apache.hadoop.ipc.Client: Retrying connect to server: C4C1/157.5.100.1:9000. Already tried 0 time(s).

2011-03-22 13:21:57,057 INFO org.apache.hadoop.ipc.Client: Retrying connect to server: C4C1/157.5.100.1:9000. Already tried 1 time(s).

…

2011-03-22 13:22:05,060 INFO org.apache.hadoop.ipc.Client: Retrying connect to server: C4C1/157.5.100.1:9000. Already tried 9 time(s).

2011-03-22 13:22:05,060 **ERROR**

org.apache.hadoop.hbase.master.MasterFileSystem: Failed splitting

hdfs://C4C1:9000/hbase/.logs/C4C9.site,60020,1300767633398

java.net.ConnectException: Call to C4C1/157.5.100.1:9000 failed on connection exception: java.net.ConnectException: Connection refused

at org.apache.hadoop.ipc.Client.wrapException(Client.java:844)

at org.apache.hadoop.ipc.Client.call(Client.java:820)

at org.apache.hadoop.ipc.RPC$Invoker.invoke(RPC.java:221)

at $Proxy5.getFileInfo(Unknown Source)

at sun.reflect.GeneratedMethodAccessor4.invoke(Unknown Source)

at sun.reflect.DelegatingMethodAccessorImpl.invoke(DelegatingMethodAccessorImpl.java:25)

at java.lang.reflect.Method.invoke(Method.java:597)

at org.apache.hadoop.io.retry.RetryInvocationHandler.invokeMethod(RetryInvocationHandler.java:82)

at org.apache.hadoop.io.retry.RetryInvocationHandler.invoke(RetryInvocationHandler.java:59)

at $Proxy5.getFileInfo(Unknown Source)

at org.apache.hadoop.hdfs.DFSClient.getFileInfo(DFSClient.java:623)

at org.apache.hadoop.hdfs.DistributedFileSystem.getFileStatus(DistributedFileSystem.java:461)

at org.apache.hadoop.fs.FileSystem.exists(FileSystem.java:690)

at org.apache.hadoop.hbase.regionserver.wal.HLogSplitter.splitLog(HLogSplitter.java:177)

at org.apache.hadoop.hbase.master.MasterFileSystem.splitLog(MasterFileSystem.java:196)

at org.apache.hadoop.hbase.master.handler.ServerShutdownHandler.process(ServerShutdownHandler.java:95)

at org.apache.hadoop.hbase.executor.EventHandler.run(EventHandler.java:151)

at java.util.concurrent.ThreadPoolExecutor$Worker.runTask(ThreadPoolExecutor.java:886)

at java.util.concurrent.ThreadPoolExecutor$Worker.run(ThreadPoolExecutor.java:908)

at java.lang.Thread.run(Thread.java:662)

Caused by: java.net.ConnectException: Connection refused

at sun.nio.ch.SocketChannelImpl.checkConnect(Native Method)

at sun.nio.ch.SocketChannelImpl.finishConnect(SocketChannelImpl.java:574)

at org.apache.hadoop.net.SocketIOWithTimeout.connect(SocketIOWithTimeout.java:206)

at org.apache.hadoop.net.NetUtils.connect(NetUtils.java:408)

at org.apache.hadoop.ipc.Client$Connection.setupIOstreams(Client.java:332)

at org.apache.hadoop.ipc.Client$Connection.access$2000(Client.java:202)

at org.apache.hadoop.ipc.Client.getConnection(Client.java:943)

at org.apache.hadoop.ipc.Client.call(Client.java:788)

... 18 more

2011-03-22 13:22:45,600 INFO org.apache.hadoop.ipc.Client: Retrying connect to server: C4C1/157.5.100.1:9000. Already tried 0 time(s).

2011-03-22 13:22:46,600 INFO org.apache.hadoop.ipc.Client: Retrying connect to server: C4C1/157.5.100.1:9000. Already tried 1 time(s).

…

2011-03-22 13:22:54,603 INFO org.apache.hadoop.ipc.Client: Retrying connect to server: C4C1/157.5.100.1:9000. Already tried 9 time(s).

2011-03-22 13:22:54,603 WARN

org.apache.hadoop.hbase.master.LogCleaner: Error while cleaning the logs

java.net.ConnectException: Call to C4C1/157.5.100.1:9000 failed on connection exception: java.net.ConnectException: Connection refused

at org.apache.hadoop.ipc.Client.wrapException(Client.java:844)

at org.apache.hadoop.ipc.Client.call(Client.java:820)

at org.apache.hadoop.ipc. RPC$Invoker.invoke(RPC.java:221)

…

2011-4-12 14:57:58 C4C3 shutdow itself because of ANN crashed.

skip splitlog and ressigned Meta table.

2011-04-12 14:57:58,782 INFO org.apache.hadoop.hbase.master.handler.ServerShutdownHandler: Splitting logs for C4C3.site,60020,1302590910433

2011-04-12 14:57:59,790 INFO org.apache.hadoop.ipc.Client: Retrying connect to server: C4C1/157.5.100.1:9000. Already tried 0 time(s).

....

2011-04-12 14:58:08,793 INFO org.apache.hadoop.ipc.Client: Retrying connect to server: C4C1/157.5.100.1:9000. Already tried 9 time(s).

2011-04-12 14:58:08,795 ERROR org.apache.hadoop.hbase.master.MasterFileSystem: Failed splitting hdfs://C4C1:9000/hbase/.logs/C4C3.site,60020,1302590910433

java.net.ConnectException: Call to C4C1/157.5.100.1:9000 failed on connection exception: java.net.ConnectException: Connection refused

2011-04-12 14:58:08,805 INFO org.apache.hadoop.hbase.catalog.RootLocationEditor: Unsetting ROOT region location in ZooKeeper

2011-04-12 14:58:08,880 INFO org.apache.hadoop.hbase.catalog.CatalogTracker: Failed verification of .META.,,1 at address=C4C3.site:60020; java.net.ConnectException: Connection refused

2011-04-12 14:58:08,880 INFO org.apache.hadoop.hbase.catalog.CatalogTracker: Current cached META location is not valid, resetting

Hmaster finished process shutdown event when BNN becomes active and meta table ressigned

2011-04-12 15:00:31,681 INFO org.apache.hadoop.ipc.Client: Retrying connect to server: C4C1/157.5.100.1:9000. Already tried 0 time(s).

2011-04-12 15:00:32,682 INFO org.apache.hadoop.ipc.Client: Retrying connect to server: C4C1/157.5.100.1:9000. Already tried 1 time(s).

2011-04-12 15:00:40,698 INFO org.apache.hadoop.hbase.master.AssignmentManager: Regions in transition timed out: .META.,,1.1028785192 state=OPENING, ts=1302591600701

2011-04-12 15:00:40,699 INFO org.apache.hadoop.hbase.master.AssignmentManager: Region has been OPENING for too long, reassigning region=.META.,,1.1028785192

2011-04-12 15:00:40,709 INFO org.apache.hadoop.hbase.master.AssignmentManager: Successfully transitioned region=.META.,,1.1028785192 into OFFLINE and forcing a new assignment

2011-04-12 15:00:40,712 INFO org.apache.hadoop.hbase.master.AssignmentManager: Regions in transition timed out: ROOT,,0.70236052 state=OPENING, ts=1302591600718

2011-04-12 15:00:40,712 INFO org.apache.hadoop.hbase.master.AssignmentManager: Region has been OPENING for too long, reassigning region=ROOT,,0.70236052

2011-04-12 15:00:40,725 INFO org.apache.hadoop.hbase.master.AssignmentManager: Successfully transitioned region=ROOT,,0.70236052 into OFFLINE and forcing a new assignment

2011-04-12 15:00:40,892 INFO org.apache.hadoop.hbase.zookeeper.MetaNodeTracker: Detected completed assignment of META, notifying catalog tracker

2011-04-12 15:00:45,870 INFO org.apache.hadoop.hbase.master.handler.ServerShutdownHandler: Reassigning 0 region(s) that C4C3.site,60020,1302590910433 was carrying (skipping 0 regions(s) that are already in transition)

2011-04-12 15:00:45,870 INFO org.apache.hadoop.hbase.master.handler.ServerShutdownHandler: Finished processing of shutdown of C4C3.site,60020,1302590910433