Hadoop HDFS / HDFS-10760

# DataXceiver#run() should not log InvalidToken exception as an error

## ⌄ Details

| | | | |
|---|---|---|---|
| Type: | 🟥 Bug | Status: | **RESOLVED** |
| Priority: | ⬆ Major | Resolution: | Fixed |
| Affects Version/s: | 2.7.2 | Fix Version/s: | 2.8.0, 3.0.0-alpha2 |
| Component/s: | None | | |
| Labels: | None | | |
| Hadoop Flags: | Reviewed | | |
| Release Note: | Log InvalidTokenException at trace level in DataXceiver#run(). | | |

## ⌄ Description

DataXceiver#run() just log InvalidToken exception as an error.
When client has an expired token and just refetch a new token, the DN log will has an error like below:

```
2016-08-11 02:41:09,817 ERROR datanode.DataNode (DataXceiver.java:run(269)) – XXXXXXX:50010:DataXceiver error processing READ_BI
org.apache.hadoop.security.token.SecretManager$InvalidToken: Block token with block_token_identifier (expiryDate=1470850746803,
        at org.apache.hadoop.hdfs.security.token.block.BlockTokenSecretManager.checkAccess(BlockTokenSecretManager.java:280)
        at org.apache.hadoop.hdfs.security.token.block.BlockTokenSecretManager.checkAccess(BlockTokenSecretManager.java:301)
        at org.apache.hadoop.hdfs.security.token.block.BlockPoolTokenSecretManager.checkAccess(BlockPoolTokenSecretManager.java
        at org.apache.hadoop.hdfs.server.datanode.DataXceiver.checkAccess(DataXceiver.java:1236)
        at org.apache.hadoop.hdfs.server.datanode.DataXceiver.readBlock(DataXceiver.java:481)
        at org.apache.hadoop.hdfs.protocol.datatransfer.Receiver.opReadBlock(Receiver.java:116)
        at org.apache.hadoop.hdfs.protocol.datatransfer.Receiver.processOp(Receiver.java:71)
        at org.apache.hadoop.hdfs.server.datanode.DataXceiver.run(DataXceiver.java:242)
        at java.lang.Thread.run(Thread.java:745)
```

This is not a server error and the DataXceiver#checkAccess() has already loged the InvalidToken as a warning.
A simple fix by catching the InvalidToken exception in DataXceiver#run(), only keeping the warning logged by DataXceiver#checkAccess() in the DN log.

## ⌄ Attachments

| | | | |
|---|---|---|---|
| 📄 HADOOP-13492.patch | | 0.9 kB | 12/Aug/16 08:31 |
| 📄 HDFS-10760-1.patch | | 0.9 kB | 15/Aug/16 01:11 |

## ⌄ Issue Links

**is related to**

| | | |
|---|---|---|
| ⬆ HDFS-14231 DataXceiver#run() should not log exceptions caused by InvalidToken exception as an error | ⬆ | **RESOLVED** |

**relates to**

| | | |
|---|---|---|
| ⬆ HDFS-11012 Unnecessary INFO logging on DFSClients for InvalidToken | ⬇ | **RESOLVED** |

## ⌄ Activity

↑

⌄ ⊙ Pan Yuxuan added a comment - 12/Aug/16 08:31

Attachment is a patch for this.

⌄ ⊙ Hadoop QA added a comment - 12/Aug/16 18:59

❌ **-1 overall**

| Vote | Subsystem | Runtime | Comment |
|------|-----------|---------|---------|
| 0 | reexec | 12m 21s | Docker mode activated. |
| +1 | @author | 0m 0s | The patch does not contain any @author tags. |
| -1 | test4tests | 0m 0s | The patch doesn't appear to include any new or modified tests. Please justify why no new tests are needed for this patch. Also please list what manual steps were performed to verify this patch. |
| +1 | mvninstall | 7m 27s | trunk passed |
| +1 | compile | 0m 47s | trunk passed |
| +1 | checkstyle | 0m 26s | trunk passed |
| +1 | mvnsite | 0m 58s | trunk passed |
| +1 | mvneclipse | 0m 14s | trunk passed |
| +1 | findbugs | 1m 44s | trunk passed |
| +1 | javadoc | 0m 53s | trunk passed |
| +1 | mvninstall | 0m 45s | the patch passed |
| +1 | compile | 0m 40s | the patch passed |
| +1 | javac | 0m 40s | the patch passed |
| -0 | checkstyle | 0m 23s | hadoop-hdfs-project/hadoop-hdfs: The patch generated 1 new + 58 unchanged - 0 fixed = 59 total (was 58) |
| +1 | mvnsite | 0m 47s | the patch passed |
| +1 | mvneclipse | 0m 9s | the patch passed |
| +1 | whitespace | 0m 0s | The patch has no whitespace issues. |
| +1 | findbugs | 1m 46s | the patch passed |
| +1 | javadoc | 0m 52s | the patch passed |
| +1 | unit | 58m 42s | hadoop-hdfs in the patch passed. |
| +1 | asflicense | 0m 24s | The patch does not generate ASF License warnings. |
| | | 90m 27s | |

| Subsystem | Report/Notes |
|-----------|--------------|
| Docker | Image:yetus/hadoop:9560f25 |
| JIRA Patch URL | https://issues.apache.org/jira/secure/attachment/12823430/HADOOP-13492.patch |
| JIRA Issue | HDFS-10760 |
| Optional Tests | asflicense compile javac javadoc mvninstall mvnsite unit findbugs checkstyle |
| uname | Linux e56684d45254 3.13.0-92-generic #139-Ubuntu SMP Tue Jun 28 20:42:26 UTC 2016 x86_64 x86_64 x86_64 GNU/Linux |
| Build tool | maven |
| Personality | /testptch/hadoop/patchprocess/precommit/personality/provided.sh |
| git revision | trunk / 23c6e3c |
| Default Java | 1.8.0_101 |
| findbugs | v3.0.0 |
| checkstyle | https://builds.apache.org/job/PreCommit-HDFS-Build/16415/artifact/patchprocess/diff-checkstyle-hadoop-hdfs-project_hadoop-hdfs.txt |
| Test Results | https://builds.apache.org/job/PreCommit-HDFS-Build/16415/testReport/ |
| modules | C: hadoop-hdfs-project/hadoop-hdfs U: hadoop-hdfs-project/hadoop-hdfs |
| Console output | https://builds.apache.org/job/PreCommit-HDFS-Build/16415/console |

| Powered by | Apache Yetus 0.4.0-SNAPSHOT http://yetus.apache.org |
|---|---|

This message was automatically generated.

**Pan Yuxuan** added a comment - 15/Aug/16 01:11

Uploaded a new patch with checkstyle fixes.

**Hadoop QA** added a comment - 15/Aug/16 02:56

❌ **-1 overall**

| Vote | Subsystem | Runtime | Comment |
|---|---|---|---|
| 0 | reexec | 0m 19s | Docker mode activated. |
| +1 | @author | 0m 0s | The patch does not contain any @author tags. |
| -1 | test4tests | 0m 0s | The patch doesn't appear to include any new or modified tests. Please justify why no new tests are needed for this patch. Also please list what manual steps were performed to verify this patch. |
| +1 | mvninstall | 8m 2s | trunk passed |
| +1 | compile | 0m 50s | trunk passed |
| +1 | checkstyle | 0m 27s | trunk passed |
| +1 | mvnsite | 0m 53s | trunk passed |
| +1 | mvneclipse | 0m 13s | trunk passed |
| +1 | findbugs | 1m 44s | trunk passed |
| +1 | javadoc | 0m 55s | trunk passed |
| +1 | mvninstall | 0m 48s | the patch passed |
| +1 | compile | 0m 41s | the patch passed |
| +1 | javac | 0m 41s | the patch passed |
| +1 | checkstyle | 0m 23s | the patch passed |
| +1 | mvnsite | 0m 50s | the patch passed |
| +1 | mvneclipse | 0m 11s | the patch passed |
| +1 | whitespace | 0m 0s | The patch has no whitespace issues. |
| +1 | findbugs | 1m 48s | the patch passed |
| +1 | javadoc | 0m 59s | the patch passed |
| -1 | unit | 77m 28s | hadoop-hdfs in the patch failed. |
| +1 | asflicense | 0m 20s | The patch does not generate ASF License warnings. |
| | | 98m 14s | |

| Reason | Tests |
|---|---|
| Failed junit tests | hadoop.hdfs.server.namenode.ha.TestFailureToReadEdits |
| | hadoop.hdfs.TestFileAppendRestart |

| Subsystem | Report/Notes |
|---|---|
| Docker | Image:yetus/hadoop:9560f25 |
| JIRA Patch URL | https://issues.apache.org/jira/secure/attachment/12823640/HDFS-10760-1.patch |
| JIRA Issue | HDFS-10760 |
| Optional Tests | asflicense compile javac javadoc mvninstall mvnsite unit findbugs checkstyle |

| uname | Linux d806d63e0609 3.13.0-36-lowlatency #63-Ubuntu SMP PREEMPT Wed Sep 3 21:56:12 UTC 2014 x86_64 x86_64 x86_64 GNU/Linux |
|---|---|
| Build tool | maven |
| Personality | /testptch/hadoop/patchprocess/precommit/personality/provided.sh |
| git revision | trunk / d677b68 |
| Default Java | 1.8.0_101 |
| findbugs | v3.0.0 |
| unit | https://builds.apache.org/job/PreCommit-HDFS-Build/16418/artifact/patchprocess/patch-unit-hadoop-hdfs-project_hadoop-hdfs.txt |
| Test Results | https://builds.apache.org/job/PreCommit-HDFS-Build/16418/testReport/ |
| modules | C: hadoop-hdfs-project/hadoop-hdfs U: hadoop-hdfs-project/hadoop-hdfs |
| Console output | https://builds.apache.org/job/PreCommit-HDFS-Build/16418/console |
| Powered by | Apache Yetus 0.4.0-SNAPSHOT http://yetus.apache.org |

This message was automatically generated.

---

**Pan Yuxuan** added a comment - 16/Aug/16 06:45

Test Failure is not related to this patch

---

**Pan Yuxuan** added a comment - 30/Aug/16 06:31

brahmareddy ajisakaa shahrs87
Could anyone please help to review this simple patch? Thanks!

---

**Brahma Reddy Battula** added a comment - 30/Aug/16 12:46

panyuxuan thanks for reporting this issue.. Patch looks good to me....ajisakaa and shahrs87 how do you think.?

---

**Rushabh Shah** added a comment - 30/Aug/16 14:19

panyuxuan: Thanks for reporting the issue.
Patch looks good to me as well.
+1 non-binding.

---

**Wei-Chiu Chuang** added a comment - 30/Aug/16 15:40 - edited

panyuxuan thanks for reporting the issue and creating the patch.
In fact, DataXceiver#checkAccess() is used by multiple methods and I think it would be beneficial if you can also improve other callers as well.

For example, I can see DataXceiver#writeBlock calls checkAccess, and if an InvalidTokenException is thrown, it also logs a message at error level.

```
try {
...
} catch (IOException ioe) {
if (isClient) {
        LOG.error(datanode + ":Exception transfering block " +
                block + " to mirror " + mirrorNode + ": " + e);
        throw e;
    }
}
```

---

**Rushabh Shah** added a comment - 30/Aug/16 15:46

I also checked for the same thing when I was reviewing.
But it turns out that checkAccess method is not in the try block, so it will just throw the InvlaidToken Exception all the way back to DataXceiver#run.
So I think the patch should be good.
Correct me if I am wrong.

⌄  ◯ **Wei-Chiu Chuang** added a comment - 30/Aug/16 16:44

Thanks for correcting me. You're right about that.
+1.

⌄  ◯ **Wei-Chiu Chuang** added a comment - 30/Aug/16 18:00

Committed it to trunk, branch-2 and branch-2.8.
Thanks panyuxuan for contributing the patch and brahmareddy and shahrs87 for comments!

⌄  ◯ **Hudson** added a comment - 30/Aug/16 18:20

SUCCESS: Integrated in Jenkins build Hadoop-trunk-Commit #10375 (See https://builds.apache.org/job/Hadoop-trunk-Commit/10375/)
~~HDFS-10760~~. DataXceiver#run() should not log InvalidToken exception as (weichiu: rev c4ee6915a14e00342755d7cdcbf2d61518f306aa)

- (edit) hadoop-hdfs-project/hadoop-hdfs/src/main/java/org/apache/hadoop/hdfs/server/datanode/DataXceiver.java

⌄ **People**

Assignee:

◯ Pan Yuxuan

Reporter:

◯ Pan Yuxuan

Votes:

0  Vote for this issue

Watchers:

7  Start watching this issue

⌄ **Dates**

Created:

12/Aug/16 08:29

Updated:

04/Feb/19 23:27

Resolved:

30/Aug/16 18:00