

HDFS14514

Issue link

<https://issues.apache.org/jira/browse/HDFS-14514>

Symptom

In Hadoop 2, when a file is opened for write in encryption zone, taken a snapshot and appended, the read out file size in the snapshot is larger than the listing size. This happens even when immutable snapshot [HDFS-11402](#) is enabled.

Reproducing

Reproducing this issue need one server.

Install these packages if they can't be found in your server.

```
1 | sudo apt install git
2 | sudo apt install maven
3 | sudo apt-get install openjdk-8-jdk
4 | sudo apt install curl
5 | sudo apt install autoconf
6 | sudo apt-get install libtool
7 | sudo apt install make
8 | sudo apt install g++
```

Please make sure the version of Hadoop source code is 2.9.2

Then change the permission of scripts:

```
1 | chmod -R 755 path_to_T2C/experiments/reproduce/HDFS-14514
```

Modify the content of file `kms.passwd`: choose a password for keystore and store it in `kms.passwd`. There is already a password `123456` in the file, but you can change it into another string that you like.

Then run `install_HDFS-14514.sh`

```
1 | experiments/reproduce/HDFS-14514/install_HDFS-14514.sh [path_to_T2C] [path_to_HADOOP]
```

If there is a problem about the version of `protobuf` like `'protoc --version did not return a version'`, please run the script `build_protoc.sh`. After running this script, there should be a folder at the same directory as `build_protoc.sh`. Add `protoc` to PATH:

```
1 | export PROTOC_HOME=/path_to_protoc/protoc/2.5.0
2 | export HADOOP_PROTOC_PATH=$PROTOC_HOME/dist/bin/protoc
3 | export PATH=$PROTOC_HOME/dist/bin/:$PATH
4 | source ~/.bashrc
```

Then there should be no error message when running `install_HDFS-14514.sh`.

Now run `trigger_HDFS-14514.sh`.

```
1 | experiments/reproduce/HDFS-14514/trigger_HDFS-14514.sh [path_to_HADOOP]
```

When running `trigger_HDFS-14514.sh`, there will be some prompts asking you set a password for keystore. Please input the same password as the content in file `kms.passwd`. As for another prompt asking first and last name, input localhost. The other prompts are not important, just enter.

```
What is your first and last name?  
[Unknown]: localhost  
What is the name of your organizational unit?  
[Unknown]:  
What is the name of your organization?  
[Unknown]:  
What is the name of your City or Locality?  
[Unknown]:  
What is the name of your State or Province?  
[Unknown]:  
What is the two-letter country code for this unit?  
[Unknown]:  
Is CN=localhost, OU=Unknown, O=Unknown, L=Unknown, ST=Unknown, C=Unknown correct?  
[no]: yes
```

The output of this script will show the bug.