Item 143

git_comments:

1. * * The Configuration object is shared by both KMS client and server in unit * tests because UGI gets/sets it to a static variable. * As a workaround, make sure the client configurations are copied to server * so that client can read them. * @param keyStoreDir where keystore is located. * @param conf KMS client configuration * @return KMS server configuration based on client. * @throws Exception

git_commits:

1. **summary:** HADOOP-13638. KMS should set UGI's Configuration object properly. Contributed by Wei-Chiu Chuang.

message: HADOOP-13638. KMS should set UGI's Configuration object properly. Contributed by Wei-Chiu Chuang. (cherry picked from commit fa397e74fe988bcbb05c816de73eb738794ace4b) Conflicts: hadoop-common-project/hadoop-

kms/src/test/java/org/apache/hadoop/crypto/key/kms/server/TestKMS.java

github_issues:
github_issues_comments:
github_pulls:
github_pulls_comments:
github_pulls_reviews:
jira_issues:

1. **summary:** KMS should set UGI's Configuration object properly **description:** We found that the Configuration object in UGI in KMS server is not initialized properly, therefore it does not load core-site.xml from {{KMSConfiguration.KMS_CONFIG_DIR}}. This becomes a problem when the Hadoop cluster uses LdapGroupsMapping for group resolution, because the UGI in KMS falls back to the default JniBasedUnixGroupsMappingWithFallback (defined in coredefault.xml) and is thus not consistent with the Hadoop cluster.

jira_issues_comments:

- 1. v01. a one-liner fixer to set UGI configuration correctly when KMS starts. I don't think it's easy to unit test it, but I've manually verified this fix works on a CDH 5.7.0 cluster.
- 2. +1 pending jenkins. Nice work Wei-Chiu! This is clearly a bug and I think manual testing is fine. Could you elaborate a little bit on the manual testings you've done? Thanks.
- 3. Here's what I did to verify the patch: Configure a CDH Hadoop cluster using LdapGroupsMapping and KMS. The KMS ACL rule denies "group1" from decrypting the key. I added additional log at {{Groups# <init>}} to print the class name of the GroupMapping resolution object. Subsequently, I started KMS and do a few operations in a HDFS encryption zone to observe the class name printed.
- 4. | (x) *{color:red}-1 overall{color}* | \\ \\ | Vote | Subsystem | Runtime | Comment | | {color:blue}0{color} | {color:blue} reexec {color} | {color:blue} 0m 12s{color} | {color:blue} Docker mode activated. {color} | {color:green}+1{color} | {color:green} @author {color} | {color:green} 0m 0s{color} | {color:green} The patch does not contain any @author tags. {color} | {color:red}-1{color} | {color:red} test4tests {color} | {color:red} 0m 0s{color} | {color:red} 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. {color} | {color:green}+1{color} | {color:green} 6m 52s{color} | {color:green} trunk passed {color} | {color:green} fom 19s{color} | {color:green} fom 19s{color} | {color:green} fom 19s{color} | {color:green} fom 11s{color} | {color:green} for 11s{color} | {color:gre

trunk passed {color} | | {color:green} +1{color} | {color:green} javadoc {color} | {color:green} 0m 11s{color} | {color:green} trunk passed {color} | | {color:green} + 1{color} | {color:green} mvninstall {color} | {color:green} 0m 16s{color} | {color:green} the patch passed {color} || {color:green}+1{color} | {color:green} compile {color} | {color:green} 7m 13s{color} | {color:green} the patch passed {color} | {color:green}+1{color} | {color:green} javac {color} | {color:green} 7m 13s{color} | {color:green} the patch passed {color} | | {color:green} + 1{color} | {color:green} checkstyle {color} | {color:green} 0m 13s{color} | {color:green} the patch passed {color} || {color:green}+1{color} | {color:green} mvnsite {color} | {color:green} 0m 18s{color} | {color:green} the patch passed {color} | | {color:green}+1{color} | {color:green} mvneclipse {color} | {color:green} 0m 13s{color} | {color:green} the patch passed {color} | | {color:green} + 1{color} | {color:green} whitespace {color} | {color:green} 0m 0s{color} | {color:green} The patch has no whitespace issues. {color} | | {color:green}+1{color} | {color:green} findbugs {color} | {color:green} 0m 31s{color} | {color:green} the patch passed {color} | | {color:green}+1{color} | {color:green} javadoc {color} | {color:green} 0m 14s{color} | {color:green} the patch passed {color} | | {color:red}-1{color} | {color:red} unit {color} | {color:red} 1m 32s{color} | {color:red} hadoop-kms in the patch failed. {color} || {color:green}+1{color} | {color:green} asflicense {color} | {color:green} 0m 22s{color} | {color:green} The patch does not generate ASF License warnings. {color} | | {color:black} {color} | {color:black} {color} | {color:black} 27m 52s{color} | {color:black} {color} | \\ \\ || Reason || Tests || | Failed junit tests | hadoop.crypto.key.kms.server.TestKMS \\\ Subsystem | Report/Notes | Docker | Image:yetus/hadoop:9560f25 | JIRA Issue | HADOOP-13638 | JIRA Patch URL | https://issues.apache.org/jira/secure/attachment/12829690/HADOOP-13638.001.patch | Optional Tests | asflicense compile javac javadoc mvninstall mvnsite unit findbugs checkstyle | | uname | Linux 9ddaad62c252 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 / 964e546 | | Default Java | 1.8.0_101 | | findbugs | v3.0.0 | | unit | https://builds.apache.org/job/PreCommit-HADOOP-Build/10559/artifact/patchprocess/patch-unit-hadoop-common-project_hadoop-kms.txt | | Test Results | https://builds.apache.org/job/PreCommit-HADOOP-Build/10559/testReport/ | | modules | C: hadoopcommon-project/hadoop-kms U: hadoop-common-project/hadoop-kms | | Console output | https://builds.apache.org/job/PreCommit-HADOOP-Build/10559/console | | Powered by | Apache Yetus 0.4.0-SNAPSHOT http://yetus.apache.org | This message was automatically generated.

- 5. Thanks for the explanation Wei-Chiu, sgtm. Failed test looks related.
- 6. The tests failed because UserGroupInformation.setConfiguration(conf) sets a global variable, and each test has a client side configuration which is overwritten by it. Need to find a way to avoid interference between client and server.
- 7. Thanks for looking into the test Wei-Chiu. Looking forward to the fix. This will also give audience more time to review this. :)
- 8. **body:** v02: The Configuration object is shared by both KMS client and server in unit tests because UGI gets/sets it to a static variable. I don't see a way to isolate client's configuration from server. Fortunately, UGI-sensitive configuration names are independent between KMS client and server. As a workaround, make sure the client configurations are copied to the server's so that client can read them. **label:** code-design
- 9. | (/) *{color:green}+1 overall{color}* | \\ \\ || Vote || Subsystem || Runtime || Comment || | {color:blue}0{color} | {color:blue} reexec {color} | {color:blue} 0m 20s{color} | {color:blue} Docker mode activated. {color} || {color:green}+1{color} | {color:green} @author {color} | {color:green} 0m Os{color} | {color:green} The patch does not contain any @author tags. {color} | | {color:green}+1{color} | {color:green} test4tests {color} | {color:green} 0m 0s{color} | {color:green} The patch appears to include 1 new or modified test files. {color} || {color:green}+1{color} | {color:green} mvninstall {color} | {color:green} 7m 43s{color} | {color:green} trunk passed {color} | | {color:green}+1{color} | {color:green} compile {color} | {color:green} 7m 32s{color} | {color:green} trunk passed {color} | | {color:green} + 1{color} | {color:green} checkstyle {color} | {color:green} 0m 14s{color} | {color:green} trunk passed {color} | | {color:green} + 1{color} | {color:green} mvnsite {color} | {color:green} 0m 18s{color} | {color:green} trunk passed {color} | {color:green}+1{color} | {color:green} mvneclipse {color} | {color:green} 0m 12s{color} | {color:green} trunk passed {color} | | {color:green}+1{color} | {color:green} findbugs {color} | {color:green} 0m 23s{color} | {color:green} trunk passed {color} | | {color:green}+1{color} | {color:green} javadoc {color} | {color:green} 0m 11s{color} | {color:green} trunk passed {color} | {color:green}+1{color} | {color:green} mvninstall {color} | {color:green} 0m 15s{color} | {color:green} the patch passed {color} || {color:green}+1{color} | {color:green} compile {color} | {color:green} 7m 5s{color} | {color:green} the patch passed {color} | | {color:green}+1{color} | {color:green} javac {color} | {color:green} 7m 5s{color} | {color:green} the

patch passed {color} | | {color:orange}-0{color} | {color:orange} checkstyle {color} | {color:orange} 0m 14s{color} | {color:orange} hadoop-common-project/hadoop-kms: The patch generated 3 new + 114 unchanged - 3 fixed = 117 total (was 117) {color} || {color:green}+1{color} | {color:green} mvnsite {color} | {color:green} 0m 18s{color} | {color:green} the patch passed {color} || {color:green}+1{color} | {color:green} mvneclipse {color} | {color:green} 0m 12s{color} | {color:green} the patch passed {color} | | {color:green} + 1{color} | {color:green} whitespace {color} | {color:green} 0m 0s{color} {color:green} The patch has no whitespace issues. {color} | | {color:green}+1{color} | {color:green} findbugs {color} | {color:green} 0m 29s{color} | {color:green} the patch passed {color} | {color:green}+1{color} | {color:green} javadoc {color} | {color:green} 0m 12s{color} | {color:green} the patch passed {color} | | {color:green} + 1{color} | {color:green} unit {color} | {color:green} 2m 8s{color} | {color:green} hadoop-kms in the patch passed. {color} | | {color:green}+1{color} {color:green} asflicense {color} | {color:green} 0m 21s{color} | {color:green} The patch does not generate ASF License warnings. {color} || {color:black} {color} | {color:black} {color} | {color:black} 29m 36s{color} | {color:black} {color} | \\ \\ | Subsystem || Report/Notes || | Docker | Image:yetus/hadoop:9560f25 | | JIRA Issue | HADOOP-13638 | | JIRA Patch URL | https://issues.apache.org/jira/secure/attachment/12829906/HADOOP-13638.002.patch | | Optional Tests | asflicense compile javac javadoc mvninstall mvnsite unit findbugs checkstyle | | uname | Linux 4f77a4ead812 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 / 40acace | | Default Java | 1.8.0_101 | | findbugs | v3.0.0 | | checkstyle | https://builds.apache.org/job/PreCommit-HADOOP-Build/10574/artifact/patchprocess/diff-checkstyle-hadoop-common-project_hadoop-kms.txt | | Test Results | https://builds.apache.org/job/PreCommit-HADOOP-Build/10574/testReport/ | | modules | C: hadoop-common-project/hadoop-kms U: hadoop-common-project/hadoop-kms | | Console output | https://builds.apache.org/job/PreCommit-HADOOP-Build/10574/console | | Powered by | Apache Yetus 0.4.0-SNAPSHOT http://yetus.apache.org | This message was automatically generated.

- 10. **body:** Checkstyle warnings can't be removed unless we refactor test methods. **label:** code-design
- 11. Thanks [~weichiu] for the new patch. Could you explain why do we need {{newConf = new Configuration(false);}} instead of the default ctor?
- 12. That was copied from an existing test case.
- 13. **body:** Checkstyle is out-of-scope as Wei-Chiu mentioned. +1 to patch 2, committing this. **label:** code-design
- 14. I have committed this to trunk, branch-2 and branch-2.8. Let me know if you feel this should go to earlier branches, from the Target Versions field. Thanks for the contribution [~weichiu]!
- 15. SUCCESS: Integrated in Jenkins build Hadoop-trunk-Commit #10489 (See [https://builds.apache.org/job/Hadoop-trunk-Commit/10489/]) HADOOP-13638. KMS should set UGI's Configuration object properly. (xiao: rev fa397e74fe988bcbb05c816de73eb738794ace4b) * (edit) hadoop-common-project/hadoop-kms/src/test/java/org/apache/hadoop/crypto/key/kms/server/TestKMS.java * (edit) hadoop-common-project/hadoop-kms/src/main/java/org/apache/hadoop/crypto/key/kms/server/KMSWebApp.java
- 16. Thanks very much [~xiaochen] for reviewing and committing the patch!