Item 160
git_comments:

1. one pad char "=" , check bits 6-24.
2. 64-79
3. * * The Base 64 Characters.
4. get 4 chars, convert to 3 bytes
5. * 32- 47
6. * * Decoded values, -1 is invalid character, -2 is = pad character.
7. No op
8. * 48- 63
9. No pads take all 3 bytes, bits 0-24
10. 0-15
11. * * Base64
12. Left here for readability byte char1 = (byte) ((n >>> 18) & 0x3F); byte char2 = (byte) ((n >>> 12) & 0x3F); byte char3 = (byte) ((n >>> 6) & 0x3F); byte char4 = (byte) (n & 0x3F);
13. invalid character(-1), or bad padding (-2)
14. append '=' to pad
15. two "==" pad chars, check bits 12-24
16. * * Determines whether the given string contains only Base64 characters. * * @param data * the string, as a <code>String</code> object, to validate * @return <code>true</code> if <code>data</code> is a valid Base64 string, otherwise <code>false</code>
17. * 80- 95
18. * 112- 127
19. * 96- 111
20. * * Private Default Ctor.
21. * * Decodes a given Base64 string into its corresponding byte array. * * @param data * the Base64 string, as a <code>String</code> object, to decode * * @return the corresponding decoded byte array * @throws IllegalArgumentException * If the string is not a valid base64 encoded string
22. pad char detected
23. * 16- 31
24. * * Encodes a byte array as a Base64 string. * * @param data * the byte array to encode * @return the Base64-encoded string, as a <code>String</code> object
25. * * Licensed to the Apache Software Foundation (ASF) under one * or more contributor license agreements. See the NOTICE file * distributed with this work for additional information * regarding copyright ownership. The ASF licenses this file * to you under the Apache License, Version 2.0 (the * "License"); you may not use this file except in compliance * with the License. You may obtain a copy of the License at * * http://www.apache.org/licenses/LICENSE-2.0 * * Unless required by applicable law or agreed to in writing, software * distributed under the License is distributed on an "AS IS" BASIS, * WITHOUT WARRANTIES OR CONDITIONS OF ANY KIND, either express or implied. * See the License for the specific language governing permissions and * limitations under the License.

git_commits:

1. **summary:** HADOOP-15757. ABFS: remove dependency on common-codec Base64.
   message: HADOOP-15757. ABFS: remove dependency on common-codec Base64. Contributed by Da Zhou.

github_issues:

github_issues_comments:

github_pulls:

github_pulls_comments:

github_pulls_reviews:

jira_issues:

1. **summary:** ABFS: remove dependency on common-codec Base64

description: Currently ABFS relies on common-codec Base64, because different versions of common-codec are widely used and some are missing the methods needed by ABFS, it cause lots of "no such method" exception in customer's env, hence we decide to add util for Base64 to avoid such issues in future.

jira_issues_comments:

1. Submitting HADOOP-15757-HADOOP-15407-001.patch: - removed dependency on Base64 of third party jar - added Base64 util. - exclude it from checkstyle for now because of the magic number violations, will try to update this to hadoop common for usage in future.
2. ABFS tests passed my US West account Tests results: Tests run: 35, Failures: 0, Errors: 0, Skipped: 0 Tests run: 269, Failures: 0, Errors: 0, Skipped: 31 Tests run: 167, Failures: 0, Errors: 0, Skipped: 27
3. **body:** LGTM, couple minor comments: *Base64.java*:   L33: {{byte DECODE_64[]}} should be {{byte[] DECODE_64}}. *TestConfigurationValidators.java*: L24: imports should be in alphabetical order, so org.apache.hadoop.fs.azurebfs.utils.Base64 is below org.apache.hadoop.fs.azurebfs.contracts.exceptions.InvalidConfigurationValueException   Otherwise, +1 from me. After we move to trunk, let's move this to hadoop-common. We've actually used this class for years, so we no it is correct and very stable.
   label: code-design
4. [~tmarquardt]Thanks for the review. Submitting HADOOP-15757-HADOOP-15407-002.patch: - Base64.java L33: resolved - TestConfigurationValidators.java, L24: resolved.
5. | (/) *{color:green}+1 overall{color}* | \\ \\ || Vote || Subsystem || Runtime || Comment || | {color:blue}0{color} | {color:blue} reexec {color} | {color:blue} 19m 57s{color} | {color:blue} Docker mode activated. {color} | || || || || {color:brown} Prechecks {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:green}+1{color} | {color:green} test4tests {color} | {color:green} 0m 0s{color} | {color:green} The patch appears to include 2 new or modified test files. {color} | || || || || {color:brown} HADOOP-15407 Compile Tests {color} || | {color:green}+1{color} | {color:green} mvninstall {color} | {color:green} 29m 58s{color} | {color:green} HADOOP-15407 passed {color} || {color:green}+1{color} | {color:green} compile {color} | {color:green} 0m 25s{color} | {color:green} HADOOP-15407 passed {color} || {color:green}+1{color} | {color:green} checkstyle {color} | {color:green} 0m 20s{color} | {color:green} HADOOP-15407 passed {color} || {color:green}+1{color} | {color:green} mvnsite {color} | {color:green} 0m 29s{color} | {color:green} HADOOP-15407 passed {color} || {color:green}+1{color} | {color:green} shadedclient {color} | {color:green} 10m 45s{color} | {color:green} branch has no errors when building and testing our client artifacts. {color} || {color:green}+1{color} | {color:green} findbugs {color} | {color:green} 0m 41s{color} | {color:green} HADOOP-15407 passed {color} || {color:green}+1{color} | {color:green} javadoc {color} | {color:green} 0m 22s{color} | {color:green} HADOOP-15407 passed {color} | || || || || {color:brown} Patch Compile Tests {color} || | {color:green}+1{color} | {color:green} mvninstall {color} | {color:green} 0m 26s{color} | {color:green} the patch passed {color} || {color:green}+1{color} | {color:green} compile {color} | {color:green} 0m 21s{color} | {color:green} the patch passed {color} || {color:green}+1{color} | {color:green} javac {color} | {color:green} 0m 21s{color} | {color:green} the patch passed {color} || {color:orange}-0{color} | {color:orange} checkstyle {color} | {color:orange} 0m 15s{color} | {color:orange} hadoop-tools/hadoop-azure: The patch generated 1 new + 0 unchanged - 0 fixed = 1 total (was 0) {color} || {color:green}+1{color} | {color:green} mvnsite {color} | {color:green} 0m 24s{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} xml {color} | {color:green} 0m 2s{color} | {color:green} The patch has no ill-formed XML file. {color} || {color:green}+1{color} | {color:green} shadedclient {color} | {color:green} 11m 43s{color} | {color:green} patch has no errors when building and testing our client artifacts. {color} || {color:green}+1{color} | {color:green} findbugs {color} | {color:green} 0m 44s{color} | {color:green} the patch passed {color} || {color:green}+1{color} | {color:green} javadoc {color} | {color:green} 0m 20s{color} | {color:green} the patch passed {color} | || || || || {color:brown} Other Tests {color} || | {color:green}+1{color} | {color:green} unit {color} | {color:green} 1m 14s{color} | {color:green} hadoop-azure in the patch passed. {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} 79m 7s{color} | {color:black} {color} | \\ \\ || Subsystem || Report/Notes || | Docker | Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:ba1ab08 || JIRA Issue | HADOOP-15757 || JIRA Patch URL | https://issues.apache.org/jira/secure/attachment/12939782/HADOOP-15757-HADOOP-15407-001.patch || Optional Tests | dupname asflicense xml compile javac javadoc mvninstall mvnsite unit shadedclient

findbugs checkstyle || uname | Linux 00fbfdcd499d 4.4.0-133-generic #159-Ubuntu SMP Fri Aug 10 07:31:43 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux || Build tool | maven || Personality | /testptch/patchprocess/precommit/personality/provided.sh || git revision | HADOOP-15407 / 39bacd6 || maven | version: Apache Maven 3.3.9 || Default Java | 1.8.0_181 || findbugs | v3.1.0-RC1 || checkstyle | https://builds.apache.org/job/PreCommit-HADOOP-Build/15196/artifact/out/diff-checkstyle-hadoop-tools_hadoop-azure.txt || Test Results | https://builds.apache.org/job/PreCommit-HADOOP-Build/15196/testReport/ || Max. process+thread count | 409 (vs. ulimit of 10000) || modules | C: hadoop-tools/hadoop-azure U: hadoop-tools/hadoop-azure || Console output | https://builds.apache.org/job/PreCommit-HADOOP-Build/15196/console || Powered by | Apache Yetus 0.8.0 http://yetus.apache.org | This message was automatically generated.

6. +1 on the 002 patch. As long as Yetus gives a +1, we can push it.   All tests pass for me too: {code:java} mvn -T 1C -Dparallel-tests=abfs -Dscale -DtestsThreadCount=8 clean verify Tests run: 35, Failures: 0, Errors: 0, Skipped: 0 Tests run: 269, Failures: 0, Errors: 0, Skipped: 182 Tests run: 167, Failures: 0, Errors: 0, Skipped: 27 Total time: 04:26 min (Wall Clock) {code}

7. | (/) *{color:green}+1 overall{color}* | \\ \\ || Vote || Subsystem || Runtime || Comment || | {color:blue}0{color} | {color:blue} reexec {color} | {color:blue} 0m 13s{color} | {color:blue} Docker mode activated. {color} | || || || || {color:brown} Prechecks {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:green}+1{color} | {color:green} test4tests {color} | {color:green} 0m 0s{color} | {color:green} The patch appears to include 2 new or modified test files. {color} | || || || || {color:brown} HADOOP-15407 Compile Tests {color} || | {color:green}+1{color} | {color:green} mvninstall {color} | {color:green} 26m 24s{color} | {color:green} HADOOP-15407 passed {color} || {color:green}+1{color} | {color:green} compile {color} | {color:green} 0m 26s{color} | {color:green} HADOOP-15407 passed {color} || {color:green}+1{color} | {color:green} checkstyle {color} | {color:green} 0m 20s{color} | {color:green} HADOOP-15407 passed {color} || {color:green}+1{color} | {color:green} mvnsite {color} | {color:green} 0m 29s{color} | {color:green} HADOOP-15407 passed {color} || {color:green}+1{color} | {color:green} shadedclient {color} | {color:green} 11m 58s{color} | {color:green} branch has no errors when building and testing our client artifacts. {color} || {color:green}+1{color} | {color:green} findbugs {color} | {color:green} 0m 38s{color} | {color:green} HADOOP-15407 passed {color} || {color:green}+1{color} | {color:green} javadoc {color} | {color:green} 0m 19s{color} | {color:green} HADOOP-15407 passed {color} || || || || {color:brown} Patch Compile Tests {color} || | {color:green}+1{color} | {color:green} mvninstall {color} | {color:green} 0m 26s{color} | {color:green} the patch passed {color} || {color:green}+1{color} | {color:green} compile {color} | {color:green} 0m 22s{color} | {color:green} the patch passed {color} || {color:green}+1{color} | {color:green} javac {color} | {color:green} 0m 22s{color} | {color:green} the patch passed {color} || {color:green}+1{color} | {color:green} checkstyle {color} | {color:green} 0m 15s{color} | {color:green} the patch passed {color} || {color:green}+1{color} | {color:green} mvnsite {color} | {color:green} 0m 26s{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} xml {color} | {color:green} 0m 1s{color} | {color:green} The patch has no ill-formed XML file. {color} || {color:green}+1{color} | {color:green} shadedclient {color} | {color:green} 12m 31s{color} | {color:green} patch has no errors when building and testing our client artifacts. {color} || {color:green}+1{color} | {color:green} findbugs {color} | {color:green} 0m 44s{color} | {color:green} the patch passed {color} || {color:green}+1{color} | {color:green} javadoc {color} | {color:green} 0m 18s{color} | {color:green} the patch passed {color} || || || || {color:brown} Other Tests {color} || | {color:green}+1{color} | {color:green} unit {color} | {color:green} 1m 7s{color} | {color:green} hadoop-azure in the patch passed. {color} || {color:green}+1{color} | {color:green} asflicense {color} | {color:green} 0m 23s{color} | {color:green} The patch does not generate ASF License warnings. {color} || {color:black}{color} | {color:black} {color} | {color:black} 57m 44s{color} | {color:black} {color} | \\ \\ || Subsystem || Report/Notes || | Docker | Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:ba1ab08 || JIRA Issue | HADOOP-15757 || JIRA Patch URL | https://issues.apache.org/jira/secure/attachment/12939792/HADOOP-15757-HADOOP-15407-002.patch || Optional Tests | dupname asflicense xml compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle || uname | Linux ffc45777f512 4.4.0-134-generic #160~14.04.1-Ubuntu SMP Fri Aug 17 11:07:07 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux || Build tool | maven || Personality | /testptch/patchprocess/precommit/personality/provided.sh || git revision | HADOOP-15407 / 39bacd6 || maven | version: Apache Maven 3.3.9 || Default Java | 1.8.0_181 || findbugs | v3.1.0-RC1 || Test Results | https://builds.apache.org/job/PreCommit-HADOOP-Build/15197/testReport/ || Max. process+thread count | 345 (vs. ulimit of 10000) || modules | C: hadoop-tools/hadoop-azure U: hadoop-tools/hadoop-azure ||

Console output | https://builds.apache.org/job/PreCommit-HADOOP-Build/15197/console | | Powered by | Apache Yetus 0.8.0 http://yetus.apache.org | This message was automatically generated.

8. commit 8873d29d32ff6605ec5b3b5abfe385b046816063 Author: Thomas Marquardt <tmarq@microsoft.com> Date: Fri Sep 14 22:34:19 2018 +0000 HADOOP-15757. ABFS: remove dependency on common-codec Base64. Contributed by Da Zhou.

9. SUCCESS: Integrated in Jenkins build Hadoop-trunk-Commit #15037 (See [https://builds.apache.org/job/Hadoop-trunk-Commit/15037/]) HADOOP-15757. ABFS: remove dependency on common-codec Base64. (tmarq: rev b4c23043d38325aad8af4488caca115eae789f07) * (edit) hadoop-tools/hadoop-azure/src/main/java/org/apache/hadoop/fs/azurebfs/AzureBlobFileSystemStore.java * (edit) hadoop-tools/hadoop-azure/src/main/java/org/apache/hadoop/fs/azurebfs/diagnostics/Base64StringConfigurationBasicValidator.java * (edit) hadoop-tools/hadoop-azure/src/test/java/org/apache/hadoop/fs/azurebfs/diagnostics/TestConfigurationValidators.java * (edit) hadoop-tools/hadoop-azure/src/config/checkstyle-suppressions.xml * (edit) hadoop-tools/hadoop-azure/src/test/java/org/apache/hadoop/fs/azurebfs/TestAbfsConfigurationFieldsValidation.java * (add) hadoop-tools/hadoop-azure/src/main/java/org/apache/hadoop/fs/azurebfs/utils/Base64.java * (edit) hadoop-tools/hadoop-azure/src/main/java/org/apache/hadoop/fs/azurebfs/services/SharedKeyCredentials.java

10. Updated fixed version to 3.2.0 as HADOOP-15407 branch is merged to trunk