



NFS does not handle exceptions correctly in a few places

Details

Type:	Improvement	Status:	RESOLVED
Priority:	Major	Resolution:	Fixed
Affects Version/s:	None	Fix Version/s:	None
Component/s:	nfs		
Labels:	None		
Hadoop Flags:	Reviewed		

Description

I noticed this file does not log exceptions appropriately in multiple locations.

Not logging the stack of Throwable:
<https://github.com/apache/hadoop-common/blob/f567f09091368fe800f3f70605da38a69c953fe3/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/OpenFileCtx.java#L364>

Printing exceptions to stderr:
<https://github.com/apache/hadoop-common/blob/f567f09091368fe800f3f70605da38a69c953fe3/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/OpenFileCtx.java#L1160>
<https://github.com/apache/hadoop-common/blob/f567f09091368fe800f3f70605da38a69c953fe3/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/OpenFileCtx.java#L1149>

Not logging the stack trace:
<https://github.com/apache/hadoop-common/blob/f567f09091368fe800f3f70605da38a69c953fe3/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/OpenFileCtx.java#L1062>
<https://github.com/apache/hadoop-common/blob/f567f09091368fe800f3f70605da38a69c953fe3/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/OpenFileCtx.java#L966>
<https://github.com/apache/hadoop-common/blob/f567f09091368fe800f3f70605da38a69c953fe3/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/OpenFileCtx.java#L961>
<https://github.com/apache/hadoop-common/blob/f567f09091368fe800f3f70605da38a69c953fe3/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/OpenFileCtx.java#L680>

Attachments

HDFS-6050.002.patch	23 kB	21/Mar/14 21:16
HDFS-6050.patch	22 kB	20/Mar/14 21:59

Issue Links

is related to


[HDFS-6056](#) Clean up NFS config settings **CLOSED**

Activity


- [Brock Noland](#) added a comment - 04/Mar/14 15:15
FYI [brandonli](#)
- [Brandon Li](#) added a comment - 04/Mar/14 21:44
Thank you, [brocknoland](#). I will address the issues.
- [Aaron Myers](#) added a comment - 04/Mar/14 21:53

Hey Brandon - I also noticed while looking at the NFS code the other day that we're a bit inconsistent with some of the config variable names, e.g. some of them start with "dfs.nfs.", some of them start with "dfs.nfs3.", some of them are camel cased, e.g. "dfs.nfs3.enableDump", and some of them are not, e.g. "dfs.nfs.exports.cache.size". Also, none of these are in DFSSConfigKeys.java or hdfs-default.xml. (I noticed this because while reviewing [HDFS-5898](#) I wanted to see what the appropriate convention was for NFS config keys and ran into some issues.

I was planning on filing a JIRA for this stuff, but if you'd rather do that in this JIRA and repurpose this one as something like "Small NFS code cleanup" that'd be fine too. Whatever you prefer.


▼  [Brock Noland](#) added a comment - 04/Mar/14 22:03

Thanks guys, as a user I really appreciate these cleanups.

▼  [Brandon Li](#) added a comment - 04/Mar/14 22:44

[atm](#), I agree that the config variables should be moved to DFSSConfigKeys.java. Some should also be added to hdfs-default.xml too, especially those (e.g., dfs.nfs3.dump.dir) we recommend the users to reset.

For the config variable names, some start with dfs.nfs and some with dfs.nfs3. The reason is that, we may add nfsv4 (borrowing more of Brock's code 😊) into the code base eventually. With that in consideration, dfs.nfs.xxx is the configuration shared by both v3 and v4, while dfs.nfs3.xxx and dfs.nfs4.xxx are version specific settings. Also, hadoop.nfs.xxx could be the config variable names in hadoop-common project. Please let me know if this makes sense.


▼  [Aaron Myers](#) added a comment - 04/Mar/14 23:30

For the config variable names, some start with dfs.nfs and some with dfs.nfs3. The reason is that, we may add nfsv4 (borrowing more of Brock's code) into the code base eventually. With that in consideration, dfs.nfs.xxx is the configuration shared by both v3 and v4, while dfs.nfs3.xxx and dfs.nfs4.xxx are version specific settings. Also, hadoop.nfs.xxx could be the config variable names in hadoop-common project. Please let me know if this makes sense.

I understand in the abstract where you're coming from, but here are a few reasons I think we should go with a more consistent naming scheme.

1. Even though this might make sense to HDFS developers, it may not in fact be helpful for users. Consistency is probably more important here. I've already had internal testers/users here goof up their setups by having configs that weren't being read because they incorrectly omitted or included "3" at the end of "nfs" in their setting names.
2. Since all of these settings are by definition server side, there's no strict *need* for these configs to be in separate namespaces. An operator could entirely reasonably just run their NFS3 gateway against a different config directory than their NFS4 gateway, even if they were on the same box.
3. It's not at all clear to me why some things were chosen to have "nfs3" and others just "nfs". For example, why was "dfs.nfs.exports.allowed.hosts" chosen to be shared between both 3 and 4, while "dfs.nfs3.export.point" was chosen to be specific to just NFS3?

Given all this, I think we should just switch to consistently using the "dfs.nfs" prefix. Most or all of these will in fact be usable by an NFS4 implementation as well if/when that's implemented, and until then including "3" in the config names adds no value.

▼  [Brandon Li](#) added a comment - 05/Mar/14 01:17

An operator could entirely reasonably just run their NFS3 gateway against a different config directory than their NFS4 gateway, even if they were on the same box.

This should be fine. I was actually concerned about that users may have hard time to set the right property for the right protocol version if all of them are named as dfs.nfs.xxx.


"dfs.nfs3.export.point" was chosen to be specific to just NFS3?

This is a mistake.

Nevertheless, the current variable names are confusing and the property in hadoop-common should not be named as dfs.xxx.

We can name nfs configuration in hadoop-hdfs-nfs as dfs.nfs.xxx and hadoop.nfs.xxx in hadoop-common. Even v4 is implemented later on, we are not going to add dfs.nfs4.xxx but only add the version information to the properties description in code (e.g., DFSSConfigKeys.java) and configuration file (e.g., hdfs-default.xml). Using documentation instead of name hierarchy to help users do the right configuration.

This will be an incompatible change. If this sounds good to you, please file a JIRA as you planned, and let's keep this JIRA for the compatible code changes.

▼  Aaron Myers added a comment - 05/Mar/14 01:22

This will be an incompatible change.

Doesn't have to be. Just add them to the deprecated keys at the bottom of the `HdfsConfiguration` class and the old values will still work, but going forward we'll use the newer ones. That's the standard way we change a config setting name to a clearer one.


Still want me to file a separate JIRA? If so, want me to assign it to you or let someone else take it up?

▼  Brandon Li added a comment - 05/Mar/14 01:41 - edited

Still want me to file a separate JIRA?


Yes. Please assign it to me.

I will use this JIRA to do the exception related changes.


▼  Aaron Myers added a comment - 05/Mar/14 01:44

Cool, done: [HDFS-6056](#)


Thanks a lot for taking this up, Brandon.

▼  Brandon Li added a comment - 05/Mar/14 21:20

Thanks, [atm](#).

▼  Brandon Li added a comment - 20/Mar/14 21:59

Uploaded a patch to fix the exception handling issue along with some code clean up.

▼  Hadoop QA added a comment - 20/Mar/14 22:34

-1 overall. Here are the results of testing the latest attachment
<http://issues.apache.org/jira/secure/attachment/12635881/HDFS-6050.patch>
against trunk revision .

+1 @author. The patch does not contain any @author tags.

-1 tests included. 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 javac. The applied patch does not increase the total number of javac compiler warnings.

+1 javadoc. There were no new javadoc warning messages.

+1 eclipse:eclipse. The patch built with eclipse:eclipse.

-1 findbugs. The patch appears to introduce 1 new Findbugs (version 1.3.9) warnings.

+1 release audit. The applied patch does not increase the total number of release audit warnings.

+1 core tests. The patch passed unit tests in hadoop-common-project/hadoop-nfs hadoop-hdfs-project/hadoop-hdfs-nfs.


+1 contrib tests. The patch passed contrib unit tests.

Test results: <https://builds.apache.org/job/PreCommit-HDFS-Build/6457//testReport/>
Findbugs warnings: <https://builds.apache.org/job/PreCommit-HDFS-Build/6457//artifact/trunk/patchprocess/newPatchFindbugsWarningshadoop-hdfs-nfs.html>
Console output: <https://builds.apache.org/job/PreCommit-HDFS-Build/6457//console>

This message is automatically generated.

▼  Brandon Li added a comment - 21/Mar/14 21:16

Uploaded a new patch to fix the findbugs warning.

▼  **Hadoop QA** added a comment - 21/Mar/14 21:49

-1 overall. Here are the results of testing the latest attachment

<http://issues.apache.org/jira/secure/attachment/12636112/HDFS-6050.002.patch>
against trunk revision .

+1 @author. The patch does not contain any @author tags.

-1 tests included. 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 javac. The applied patch does not increase the total number of javac compiler warnings.

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+1 eclipse:eclipse. The patch built with eclipse:eclipse.

+1 findbugs. The patch does not introduce any new Findbugs (version 1.3.9) warnings.

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+1 contrib tests. The patch passed contrib unit tests.


Test results: <https://builds.apache.org/job/PreCommit-HDFS-Build/6465//testReport/>

Console output: <https://builds.apache.org/job/PreCommit-HDFS-Build/6465//console>

This message is automatically generated.

▼  **Haohui Mai** added a comment - 21/Mar/14 22:36

The patch looks good to me. +1. [brandonli](#), can you update the title and description to reflect the fact that this jira is for code clean ups, not fixing bugs?

▼  **Haohui Mai** added a comment - 22/Mar/14 00:38


A nit:

```
- WccData fileWcc = new WccData(preOpAttr == null ? null
- : Nfs3Utils.getWccAttr(preOpAttr), postOpAttr);
+ WccData fileWcc = new WccData(Nfs3Utils.getWccAttr(preOpAttr), postOpAttr);
```

preOpAttr is always null here, maybe you can just inline the fact and write the following:


```
new WccData(new WccAttr(), postOpAttr);
```

Anyway, my +1 still hold.

▼  **Brandon Li** added a comment - 24/Mar/14 20:52

preOpAttr is always null here

This may not be true later so I think it's better to keep preOpAttr.

▼  **Brandon Li** added a comment - 24/Mar/14 20:53

Thank you, Haohui, for the review. I've committed the patch.

▼  **Hudson** added a comment - 24/Mar/14 20:58

SUCCESS: Integrated in Hadoop-trunk-Commit #5391 (See <https://builds.apache.org/job/Hadoop-trunk-Commit/5391/>)

~~HDFS-6050~~. NFS does not handle exceptions correctly in a few places. Contributed by Brandon Li ([brandonli](#)):

<http://svn.apache.org/viewcvcs.cgi?root=Apache-SVN&view=rev&rev=1581055>)

- /hadoop/common/trunk/hadoop-common-project/hadoop-nfs/src/main/java/org/apache/hadoop/nfs/nfs3/IdUserGroup.java
- /hadoop/common/trunk/hadoop-common-project/hadoop-nfs/src/main/java/org/apache/hadoop/nfs/nfs3/Nfs3FileAttributes.java
- /hadoop/common/trunk/hadoop-common-project/hadoop-nfs/src/main/java/org/apache/hadoop/portmap/Portmap.java

- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/mount/RpcProgramMountd.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/AsyncDataService.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/Nfs3Utils.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/OpenFileCtx.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/RpcProgramNfs3.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/WriteManager.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs/CHANGES.txt

▼  Hudson added a comment - 25/Mar/14 11:36

FAILURE: Integrated in Hadoop-Yarn-trunk #520 (See <https://builds.apache.org/job/Hadoop-Yarn-trunk/520/>)
~~HDFS-6050~~. NFS does not handle exceptions correctly in a few places. Contributed by Brandon Li (brandonli):
<http://svn.apache.org/viewcvcs.cgi/?root=Apache-SVN&view=rev&rev=1581055>)

- /hadoop/common/trunk/hadoop-common-project/hadoop-nfs/src/main/java/org/apache/hadoop/nfs/nfs3/IdUserGroup.java
- /hadoop/common/trunk/hadoop-common-project/hadoop-nfs/src/main/java/org/apache/hadoop/nfs/nfs3/Nfs3FileAttributes.java
- /hadoop/common/trunk/hadoop-common-project/hadoop-nfs/src/main/java/org/apache/hadoop/portmap/Portmap.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/mount/RpcProgramMountd.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/AsyncDataService.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/Nfs3Utils.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/OpenFileCtx.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/RpcProgramNfs3.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/WriteManager.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs/CHANGES.txt

▼  Hudson added a comment - 25/Mar/14 13:52

FAILURE: Integrated in Hadoop-Mapreduce-trunk #1737 (See <https://builds.apache.org/job/Hadoop-Mapreduce-trunk/1737/>)
~~HDFS-6050~~. NFS does not handle exceptions correctly in a few places. Contributed by Brandon Li (brandonli):
<http://svn.apache.org/viewcvcs.cgi/?root=Apache-SVN&view=rev&rev=1581055>)

- /hadoop/common/trunk/hadoop-common-project/hadoop-nfs/src/main/java/org/apache/hadoop/nfs/nfs3/IdUserGroup.java
- /hadoop/common/trunk/hadoop-common-project/hadoop-nfs/src/main/java/org/apache/hadoop/nfs/nfs3/Nfs3FileAttributes.java
- /hadoop/common/trunk/hadoop-common-project/hadoop-nfs/src/main/java/org/apache/hadoop/portmap/Portmap.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/mount/RpcProgramMountd.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/AsyncDataService.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/Nfs3Utils.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/OpenFileCtx.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/RpcProgramNfs3.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/WriteManager.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs/CHANGES.txt

▼  Hudson added a comment - 25/Mar/14 14:03

FAILURE: Integrated in Hadoop-Hdfs-trunk #1712 (See <https://builds.apache.org/job/Hadoop-Hdfs-trunk/1712/>)
~~HDFS-6050~~. NFS does not handle exceptions correctly in a few places. Contributed by Brandon Li (brandonli):
<http://svn.apache.org/viewcvcs.cgi/?root=Apache-SVN&view=rev&rev=1581055>)

- /hadoop/common/trunk/hadoop-common-project/hadoop-nfs/src/main/java/org/apache/hadoop/nfs/nfs3/IdUserGroup.java
- /hadoop/common/trunk/hadoop-common-project/hadoop-nfs/src/main/java/org/apache/hadoop/nfs/nfs3/Nfs3FileAttributes.java
- /hadoop/common/trunk/hadoop-common-project/hadoop-nfs/src/main/java/org/apache/hadoop/portmap/Portmap.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/mount/RpcProgramMountd.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/AsyncDataService.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/Nfs3Utils.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/OpenFileCtx.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/RpcProgramNfs3.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs-nfs/src/main/java/org/apache/hadoop/hdfs/nfs/nfs3/WriteManager.java
- /hadoop/common/trunk/hadoop-hdfs-project/hadoop-hdfs/CHANGES.txt

▼ People

Assignee:



Brandon Li

Reporter:



Brock Noland

Votes:

0

Vote for this issue

Watchers:

5

Start watching this issue

▼ Dates

Created:

04/Mar/14 15:12

Updated:

30/May/14 23:47

Resolved:

24/Mar/14 20:53