Hadoop YARN / YARN-4355

NPE while processing localizer heartbeat

Details

Type:	🟥 Bug	Status:	**RESOLVED**
Priority:	⌃ Major	Resolution:	Fixed
Affects Version/s:	2.7.2	Fix Version/s:	2.8.0, 2.7.4, 3.0.0-alpha2
Component/s:	nodemanager		
Labels:	None		
Target Version/s:	2.7.4		
Hadoop Flags:	Reviewed		

Description

While analyzing ~~YARN-4354~~ I noticed a nodemanager was getting NPEs while processing a private localizer heartbeat. I think there's a race where we can cleanup resources for an application and therefore remove the app local resource tracker just as we are trying to handle the localizer heartbeat.

Attachments

📄 YARN-4355.01.patch	12 kB	10/Jan/16 07:14
📄 YARN-4355.02.patch	11 kB	03/Nov/16 22:46
📄 YARN-4355.03.patch	11 kB	04/Nov/16 13:44
📄 YARN-4355.04.patch	12 kB	05/Nov/16 20:18
📄 YARN-4355.05.patch	12 kB	08/Nov/16 19:15
📄 YARN-4355-branch-2.7.001.patch	11 kB	14/Nov/16 18:44
📄 YARN-4355-branch-2.7.002.patch	11 kB	14/Nov/16 20:27

Issue Links

relates to

🟥 YARN-4354 Public resource localization fails with NPE	⊖	**CLOSED**

Activity

⬆

▼ ◉ Jason Darrell Lowe added a comment - 13/Nov/15 18:42

Stacktrace:

```
java.lang.NullPointerException
        at org.apache.hadoop.yarn.server.nodemanager.containermanager.localizer.ResourceLocalizationService$LocalizerRunner.getPa
        at org.apache.hadoop.yarn.server.nodemanager.containermanager.localizer.ResourceLocalizationService$LocalizerRunner.proce
        at org.apache.hadoop.yarn.server.nodemanager.containermanager.localizer.ResourceLocalizationService$LocalizerTracker.proc
        at org.apache.hadoop.yarn.server.nodemanager.containermanager.localizer.ResourceLocalizationService.heartbeat(ResourceLoc
        at org.apache.hadoop.yarn.server.nodemanager.api.impl.pb.service.LocalizationProtocolPBServiceImpl.heartbeat(Localization
        at org.apache.hadoop.yarn.proto.LocalizationProtocol$LocalizationProtocolService$2.callBlockingMethod(LocalizationProtoco
        at org.apache.hadoop.ipc.ProtobufRpcEngine$Server$ProtoBufRpcInvoker.call(ProtobufRpcEngine.java:619)
        at org.apache.hadoop.ipc.RPC$Server.call(RPC.java:969)
        at org.apache.hadoop.ipc.Server.call(Server.java:2297)
        at org.apache.hadoop.ipc.Server$RpcCall.run(Server.java:654)
        at org.apache.hadoop.ipc.Server$RpcCall.run(Server.java:621)
        at java.security.AccessController.doPrivileged(Native Method)
        at javax.security.auth.Subject.doAs(Subject.java:422)
        at org.apache.hadoop.security.UserGroupInformation.doAs(UserGroupInformation.java:1680)
        at org.apache.hadoop.ipc.Server$Handler.run(Server.java:2247)
```

The nodemanager was in the process of tearing down, so applications where being cleaned up. Looks like localizer heartbeats can come in and we can lose the localizer tracker just as the localizer heartbeat tries to use it.

Hadoop QA added a comment - 10/Jan/16 07:52

-1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 0s	Docker mode activated.
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 1 new or modified test files.
+1	mvninstall	7m 39s	trunk passed
+1	compile	0m 26s	trunk passed with JDK v1.8.0_66
+1	compile	0m 28s	trunk passed with JDK v1.7.0_91
+1	checkstyle	0m 12s	trunk passed
+1	mvnsite	0m 30s	trunk passed
+1	mvneclipse	0m 12s	trunk passed
+1	findbugs	0m 55s	trunk passed
+1	javadoc	0m 17s	trunk passed with JDK v1.8.0_66
+1	javadoc	0m 23s	trunk passed with JDK v1.7.0_91
+1	mvninstall	0m 24s	the patch passed
+1	compile	0m 21s	the patch passed with JDK v1.8.0_66
+1	javac	0m 21s	the patch passed
+1	compile	0m 25s	the patch passed with JDK v1.7.0_91
+1	javac	0m 25s	the patch passed
-1	checkstyle	0m 12s	Patch generated 3 new checkstyle issues in hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager (total was 152, now 149).
+1	mvnsite	0m 26s	the patch passed
+1	mvneclipse	0m 10s	the patch passed
+1	whitespace	0m 0s	Patch has no whitespace issues.
+1	findbugs	0m 59s	the patch passed
+1	javadoc	0m 15s	the patch passed with JDK v1.8.0_66
+1	javadoc	0m 20s	the patch passed with JDK v1.7.0_91
+1	unit	8m 38s	hadoop-yarn-server-nodemanager in the patch passed with JDK v1.8.0_66.
+1	unit	9m 6s	hadoop-yarn-server-nodemanager in the patch passed with JDK v1.7.0_91.
+1	asflicense	0m 17s	Patch does not generate ASF License warnings.
		33m 42s	

Subsystem	Report/Notes
Docker	Image:yetus/hadoop:0ca8df7
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12781441/YARN-4355.01.patch
JIRA Issue	YARN-4355
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit findbugs checkstyle
uname	Linux 363a76d8f023 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 / 0e76f1f
Default Java	1.7.0_91
Multi-JDK versions	/usr/lib/jvm/java-8-oracle:1.8.0_66 /usr/lib/jvm/java-7-openjdk-amd64:1.7.0_91
findbugs	v3.0.0

checkstyle	https://builds.apache.org/job/PreCommit-YARN-Build/10221/artifact/patchprocess/diff-checkstyle-hadoop-yarn-project_hadoop-yarn_hadoop-yarn-server_hadoop-yarn-server-nodemanager.txt
JDK v1.7.0_91 Test Results	https://builds.apache.org/job/PreCommit-YARN-Build/10221/testReport/
modules	C: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager U: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager
Max memory used	76MB
Powered by	Apache Yetus 0.2.0-SNAPSHOT http://yetus.apache.org
Console output	https://builds.apache.org/job/PreCommit-YARN-Build/10221/console

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▼ ◉ **Varun Saxena** added a comment - 11/Jan/16 07:17

Kindly review. The checkstyle issues are due to the surrounding statements within switch case. If I change the indentation of the line modified by me, I will have to change several lines before and after it, which have no direct connection with the change required for the patch. So leaving it as it is.

▼ ◉ **Varun Saxena** added a comment - 11/Jan/16 07:20

In the patch I have introduced a null check wherever required. On next HB, nodemanager will issue a DIE.
Did not make the methods or code blocks synchronized to avoid race because this should happen only in rare scenarios.

▼ ◉ **Hadoop QA** added a comment - 07/May/16 10:00

❌ **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 11s	Docker mode activated.
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 1 new or modified test files.
+1	mvninstall	6m 38s	trunk passed
+1	compile	0m 24s	trunk passed with JDK v1.8.0_91
+1	compile	0m 26s	trunk passed with JDK v1.7.0_95
+1	checkstyle	0m 19s	trunk passed
+1	mvnsite	0m 27s	trunk passed
+1	mvneclipse	0m 12s	trunk passed
+1	findbugs	0m 51s	trunk passed
+1	javadoc	0m 18s	trunk passed with JDK v1.8.0_91
+1	javadoc	0m 22s	trunk passed with JDK v1.7.0_95
+1	mvninstall	0m 24s	the patch passed
+1	compile	0m 21s	the patch passed with JDK v1.8.0_91
+1	javac	0m 21s	the patch passed
+1	compile	0m 24s	the patch passed with JDK v1.7.0_95
+1	javac	0m 24s	the patch passed
-1	checkstyle	0m 18s	hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager: patch generated 6 new + 236 unchanged - 6 fixed = 242 total (was 242)
+1	mvnsite	0m 26s	the patch passed
+1	mvneclipse	0m 10s	the patch passed
+1	whitespace	0m 0s	Patch has no whitespace issues.
+1	findbugs	1m 1s	the patch passed
+1	javadoc	0m 16s	the patch passed with JDK v1.8.0_91
+1	javadoc	0m 19s	the patch passed with JDK v1.7.0_95

+1	unit	11m 6s	hadoop-yarn-server-nodemanager in the patch passed with JDK v1.8.0_91.
+1	unit	11m 36s	hadoop-yarn-server-nodemanager in the patch passed with JDK v1.7.0_95.
+1	asflicense	0m 17s	Patch does not generate ASF License warnings.
		37m 45s	

Subsystem	Report/Notes
Docker	Image:yetus/hadoop:cf2ee45
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12781441/YARN-4355.01.patch
JIRA Issue	YARN-4355
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit findbugs checkstyle
uname	Linux 1c78acbbfb7c 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 / 47c41e7
Default Java	1.7.0_95
Multi-JDK versions	/usr/lib/jvm/java-8-oracle:1.8.0_91 /usr/lib/jvm/java-7-openjdk-amd64:1.7.0_95
findbugs	v3.0.0
checkstyle	https://builds.apache.org/job/PreCommit-YARN-Build/11375/artifact/patchprocess/diff-checkstyle-hadoop-yarn-project_hadoop-yarn_hadoop-yarn-server_hadoop-yarn-server-nodemanager.txt
JDK v1.7.0_95 Test Results	https://builds.apache.org/job/PreCommit-YARN-Build/11375/testReport/
modules	C: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager U: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager
Console output	https://builds.apache.org/job/PreCommit-YARN-Build/11375/console
Powered by	Apache Yetus 0.2.0 http://yetus.apache.org

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⌄ ◍ Hadoop QA added a comment - 07/May/16 10:58

❌ **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 14s	Docker mode activated.
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 1 new or modified test files.
+1	mvninstall	9m 25s	trunk passed
+1	compile	0m 38s	trunk passed with JDK v1.8.0_91
+1	compile	0m 36s	trunk passed with JDK v1.7.0_95
+1	checkstyle	0m 27s	trunk passed
+1	mvnsite	0m 39s	trunk passed
+1	mvneclipse	0m 17s	trunk passed
+1	findbugs	1m 6s	trunk passed
+1	javadoc	0m 33s	trunk passed with JDK v1.8.0_91
+1	javadoc	0m 31s	trunk passed with JDK v1.7.0_95
+1	mvninstall	0m 35s	the patch passed
+1	compile	0m 40s	the patch passed with JDK v1.8.0_91
+1	javac	0m 40s	the patch passed

+1	compile	0m 34s	the patch passed with JDK v1.7.0_95
+1	javac	0m 34s	the patch passed
-1	checkstyle	0m 23s	hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager: patch generated 6 new + 237 unchanged - 6 fixed = 243 total (was 243)
+1	mvnsite	0m 35s	the patch passed
+1	mvneclipse	0m 13s	the patch passed
+1	whitespace	0m 0s	Patch has no whitespace issues.
+1	findbugs	1m 21s	the patch passed
+1	javadoc	0m 27s	the patch passed with JDK v1.8.0_91
+1	javadoc	0m 26s	the patch passed with JDK v1.7.0_95
+1	unit	13m 18s	hadoop-yarn-server-nodemanager in the patch passed with JDK v1.8.0_91.
+1	unit	12m 54s	hadoop-yarn-server-nodemanager in the patch passed with JDK v1.7.0_95.
+1	asflicense	0m 26s	Patch does not generate ASF License warnings.
		47m 37s	

Subsystem	Report/Notes
Docker	Image:yetus/hadoop:cf2ee45
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12781441/YARN-4355.01.patch
JIRA Issue	YARN-4355
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit findbugs checkstyle
uname	Linux daa4b9d40852 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 / 47c41e7
Default Java	1.7.0_95
Multi-JDK versions	/usr/lib/jvm/java-8-oracle:1.8.0_91 /usr/lib/jvm/java-7-openjdk-amd64:1.7.0_95
findbugs	v3.0.0
checkstyle	https://builds.apache.org/job/PreCommit-YARN-Build/11376/artifact/patchprocess/diff-checkstyle-hadoop-yarn-project_hadoop-yarn_hadoop-yarn-server_hadoop-yarn-server-nodemanager.txt
JDK v1.7.0_95 Test Results	https://builds.apache.org/job/PreCommit-YARN-Build/11376/testReport/
modules	C: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager U: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager
Console output	https://builds.apache.org/job/PreCommit-YARN-Build/11376/console
Powered by	Apache Yetus 0.2.0 http://yetus.apache.org

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⌄ ◯ Daniel Templeton added a comment - 10/May/16 17:26

Two meta-comments:

- Should the log messages really be WARN? What will the admin do about it?
- Can we write out heartbeat instead of HB? Even knowing what we're talking about, it took me an embarrassing amount of puzzling to figure out what HB stands for. History....???

⌄ ◯ Vinod Kumar Vavilapalli added a comment - 18/Aug/16 01:07

2.7.3 is under release process, changing target-version to 2.7.4.

⌄ ◯ Hadoop QA added a comment - 18/Aug/16 01:09

❌ -1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 0s	Docker mode activated.
-1	patch	0m 4s	YARN-4355 does not apply to trunk. Rebase required? Wrong Branch? See https://wiki.apache.org/hadoop/HowToContribute for help.

Subsystem	Report/Notes
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12781441/YARN-4355.01.patch
JIRA Issue	YARN-4355
Console output	https://builds.apache.org/job/PreCommit-YARN-Build/12820/console
Powered by	Apache Yetus 0.3.0 http://yetus.apache.org

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Naganarasimha G R added a comment - 18/Aug/16 10:14

Latest patch doesnt seem to compile, can you rebase the patch to make some progress in this jira

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Jonathan Hung added a comment - 03/Nov/16 22:49 - edited

The initial patch looks good to me.

Naganarasimha, templedf, I rebased and uploaded a patch based on varun_saxena's patch (conflict was due to YARN-1942) and addressed the comments, can you please take a look? Thanks!

Also it seems if this race condition is hit, the localization service on that node will die which seems like a pretty serious issue? Let me know if I understood correctly.

Varun Saxena added a comment - 04/Nov/16 10:27

Thanks jhung for rebasing the patch.
I am so sorry I missed comments made by Naga and Daniel.

Naganarasimha / templedf, can either one of you commit it if latest patch looks good ?

Naganarasimha G R added a comment - 04/Nov/16 10:32

Thanks varun_saxena & jhung for working on the patch, At initial glance patch looks to be fine, let me have a final look at the patch(over the weekend) and commit it.

Hadoop QA added a comment - 04/Nov/16 10:59

❌ **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 13s	Docker mode activated.
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 1 new or modified test files.
+1	mvninstall	7m 24s	trunk passed
+1	compile	0m 26s	trunk passed
+1	checkstyle	0m 19s	trunk passed
+1	mvnsite	0m 32s	trunk passed
+1	mvneclipse	0m 14s	trunk passed
+1	findbugs	0m 53s	trunk passed
+1	javadoc	0m 18s	trunk passed
+1	mvninstall	0m 28s	the patch passed
+1	compile	0m 30s	the patch passed

-1	javac	0m 30s	hadoop-yarn-project_hadoop-yarn_hadoop-yarn-server_hadoop-yarn-server-nodemanager generated 1 new + 16 unchanged - 0 fixed = 17 total (was 16)
-0	checkstyle	0m 18s	hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager: The patch generated 7 new + 232 unchanged - 6 fixed = 239 total (was 238)
+1	mvnsite	0m 28s	the patch passed
+1	mvneclipse	0m 10s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	findbugs	0m 54s	the patch passed
+1	javadoc	0m 14s	the patch passed
+1	unit	15m 4s	hadoop-yarn-server-nodemanager in the patch passed.
+1	asflicense	0m 15s	The patch does not generate ASF License warnings.
		30m 6s	

Subsystem	Report/Notes
Docker	Image:yetus/hadoop:9560f25
JIRA Issue	YARN-4355
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12836988/YARN-4355.02.patch
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit findbugs checkstyle
uname	Linux 5384a4798cdf 3.13.0-93-generic #140-Ubuntu SMP Mon Jul 18 21:21:05 UTC 2016 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/hadoop/patchprocess/precommit/personality/provided.sh
git revision	trunk / 69dd5fa
Default Java	1.8.0_111
findbugs	v3.0.0
javac	https://builds.apache.org/job/PreCommit-YARN-Build/13782/artifact/patchprocess/diff-compile-javac-hadoop-yarn-project_hadoop-yarn_hadoop-yarn-server_hadoop-yarn-server-nodemanager.txt
checkstyle	https://builds.apache.org/job/PreCommit-YARN-Build/13782/artifact/patchprocess/diff-checkstyle-hadoop-yarn-project_hadoop-yarn_hadoop-yarn-server_hadoop-yarn-server-nodemanager.txt
Test Results	https://builds.apache.org/job/PreCommit-YARN-Build/13782/testReport/
modules	C: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager U: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager
Console output	https://builds.apache.org/job/PreCommit-YARN-Build/13782/console
Powered by	Apache Yetus 0.4.0-SNAPSHOT http://yetus.apache.org

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⌄ ◯ Varun Saxena added a comment - 04/Nov/16 13:44 - edited

Fixed checkstyle issues reported in QA report above. 3 checkstyle issues cant be fixed as the surrounding statements will have to be changed for it which is unnecessary.

⌄ ◯ Hadoop QA added a comment - 04/Nov/16 14:54

✅ +1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 20s	Docker mode activated.
+1	@author	0m 0s	The patch does not contain any @author tags.

+1	test4tests	0m 0s	The patch appears to include 1 new or modified test files.
+1	mvninstall	8m 25s	trunk passed
+1	compile	0m 27s	trunk passed
+1	checkstyle	0m 21s	trunk passed
+1	mvnsite	0m 32s	trunk passed
+1	mvneclipse	0m 13s	trunk passed
+1	findbugs	0m 45s	trunk passed
+1	javadoc	0m 18s	trunk passed
+1	mvninstall	0m 24s	the patch passed
+1	compile	0m 26s	the patch passed
+1	javac	0m 26s	the patch passed
-0	checkstyle	0m 20s	hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager: The patch generated 3 new + 233 unchanged - 5 fixed = 236 total (was 238)
+1	mvnsite	0m 31s	the patch passed
+1	mvneclipse	0m 13s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	findbugs	0m 56s	the patch passed
+1	javadoc	0m 15s	the patch passed
+1	unit	15m 9s	hadoop-yarn-server-nodemanager in the patch passed.
+1	asflicense	0m 18s	The patch does not generate ASF License warnings.
		31m 12s	

Subsystem	Report/Notes
Docker	Image:yetus/hadoop:9560f25
JIRA Issue	YARN-4355
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12837125/YARN-4355.03.patch
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit findbugs checkstyle
uname	Linux 80a007fdf344 3.13.0-95-generic #142-Ubuntu SMP Fri Aug 12 17:00:09 UTC 2016 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/hadoop/patchprocess/precommit/personality/provided.sh
git revision	trunk / 19b3779
Default Java	1.8.0_101
findbugs	v3.0.0
checkstyle	https://builds.apache.org/job/PreCommit-YARN-Build/13784/artifact/patchprocess/diff-checkstyle-hadoop-yarn-project_hadoop-yarn_hadoop-yarn-server_hadoop-yarn-server-nodemanager.txt
Test Results	https://builds.apache.org/job/PreCommit-YARN-Build/13784/testReport/
modules	C: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager U: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager
Console output	https://builds.apache.org/job/PreCommit-YARN-Build/13784/console
Powered by	Apache Yetus 0.4.0-SNAPSHOT http://yetus.apache.org

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○ Daniel Templeton added a comment - 04/Nov/16 16:07

Two minor comments on the test:

- You use both `assertEquals()` and `Assert.fail()`. It would be better to be consistent about using static imports or not.
- I always prefer having a message in the assert that explains what's actually failing and what that implies.

Varun Saxena added a comment - 05/Nov/16 20:18

Attaching a patch after addressing templedf's comments

Hadoop QA added a comment - 06/Nov/16 07:08

❌ **-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 appears to include 1 new or modified test files.
+1	mvninstall	7m 8s	trunk passed
+1	compile	0m 27s	trunk passed
+1	checkstyle	0m 19s	trunk passed
+1	mvnsite	0m 26s	trunk passed
+1	mvneclipse	0m 12s	trunk passed
+1	findbugs	0m 42s	trunk passed
+1	javadoc	0m 17s	trunk passed
+1	mvninstall	0m 23s	the patch passed
+1	compile	0m 24s	the patch passed
+1	javac	0m 24s	the patch passed
-0	checkstyle	0m 16s	hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager: The patch generated 3 new + 233 unchanged - 6 fixed = 236 total (was 239)
+1	mvnsite	0m 25s	the patch passed
+1	mvneclipse	0m 10s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	findbugs	0m 45s	the patch passed
+1	javadoc	0m 14s	the patch passed
-1	unit	15m 42s	hadoop-yarn-server-nodemanager in the patch failed.
+1	asflicense	0m 15s	The patch does not generate ASF License warnings.
		29m 41s	

Reason	Tests
Failed junit tests	hadoop.yarn.server.nodemanager.containermanager.queuing.TestQueuingContainerManager

Subsystem	Report/Notes
Docker	Image:yetus/hadoop:9560f25
JIRA Issue	YARN-4355
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12837630/YARN-4355.04.patch
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit findbugs checkstyle
uname	Linux 9513ecc567e4 3.13.0-95-generic #142-Ubuntu SMP Fri Aug 12 17:00:09 UTC 2016 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/hadoop/patchprocess/precommit/personality/provided.sh
git revision	trunk / d8bab3d

Default Java	1.8.0_101
findbugs	v3.0.0
checkstyle	https://builds.apache.org/job/PreCommit-YARN-Build/13797/artifact/patchprocess/diff-checkstyle-hadoop-yarn-project_hadoop-yarn_hadoop-yarn-server_hadoop-yarn-server-nodemanager.txt
unit	https://builds.apache.org/job/PreCommit-YARN-Build/13797/artifact/patchprocess/patch-unit-hadoop-yarn-project_hadoop-yarn_hadoop-yarn-server_hadoop-yarn-server-nodemanager.txt
Test Results	https://builds.apache.org/job/PreCommit-YARN-Build/13797/testReport/
modules	C: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager U: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager
Console output	https://builds.apache.org/job/PreCommit-YARN-Build/13797/console
Powered by	Apache Yetus 0.4.0-SNAPSHOT http://yetus.apache.org

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Naganarasimha G R added a comment - 06/Nov/16 14:34

Thanks varun_saxena for the patch,
I have some doubts for avoiding race @ ResourceLocalizationService, ln no 1119.

1. If cleanup has happened then are there chances of having pending `LocalizerResourceRequestEvent` in **LocalizerRunner** ?
2. Also cant we pass the same tracker instance to `getPathForLocalization` from LocalizerRunner.processHeartbeat ?

Few trivial nits:

1. TestResourceLocalizationService, ln no 1543 : no need to create a new array list when we are using `Arrays.asList(req1, req2)`
2. TestResourceLocalizationService, ln no 1581 : may be we can join the line below line as it doesn't exceed 80 chars.

Varun Saxena added a comment - 06/Nov/16 20:35

> Also cant we pass the same tracker instance to getPathForLocalization from LocalizerRunner.processHeartbeat ?

That is what is being done. Previously tracker was fetched inside getPathForLocalization. Do you mean something else ?

```
1119            LocalResourcesTracker tracker = getLocalResourcesTracker(
1120                next.getVisibility(), user, applicationId);
1121          if (tracker != null) {
1122            ResourceLocalizationSpec resource =
1123                NodeManagerBuilderUtils.newResourceLocalizationSpec(next,
1124                getPathForLocalization(next, tracker));
1125            rsrcs.add(resource);
1126          }
```

> If cleanup has happened then are there chances of having pending LocalizerResourceRequestEvent in LocalizerRunner ?

It can even if rarely. This section of code isn't really synchronized. So event processing for cleaning up container resources and destroying application resources can happen before localizer HB is fully processed. Localizer will only DIE if it cannot find the localizer in list of localizers which is removed when container is cleaned up. But it is possible that HB carries on for processing if it finds the localizer but later does not find the tracker as application resources are later destroyed before HB is fully processed due to the corresponding sections are not guarded by lock. Evidence of this is the NPE reported in JIRA which came on a real cluster. This NPE came when NM was shutting down so all the apps on the NM were being cleaned up as well. So yes there can be chances of having pending events. And anyways having a null check is not a bad thing to do.
Why did I not synchronize this section of code as a solution. Well the reason was that the possibility of this race happening is very rare.

Varun Saxena added a comment - 08/Nov/16 19:15

Attaching a patch fixing 2 nits pointed out by Naga above.

Hadoop QA added a comment - 08/Nov/16 19:47

❌ **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 16s	Docker mode activated.

+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 1 new or modified test files.
+1	mvninstall	6m 49s	trunk passed
+1	compile	0m 27s	trunk passed
+1	checkstyle	0m 19s	trunk passed
+1	mvnsite	0m 26s	trunk passed
+1	mvneclipse	0m 13s	trunk passed
+1	findbugs	0m 40s	trunk passed
+1	javadoc	0m 17s	trunk passed
+1	mvninstall	0m 24s	the patch passed
+1	compile	0m 27s	the patch passed
+1	javac	0m 27s	the patch passed
−0	checkstyle	0m 19s	hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager: The patch generated 3 new + 232 unchanged - 6 fixed = 235 total (was 238)
+1	mvnsite	0m 29s	the patch passed
+1	mvneclipse	0m 12s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	findbugs	0m 55s	the patch passed
+1	javadoc	0m 18s	the patch passed
−1	unit	14m 51s	hadoop-yarn-server-nodemanager in the patch failed.
+1	asflicense	0m 18s	The patch does not generate ASF License warnings.
		29m 0s	

Reason	Tests
Failed junit tests	hadoop.yarn.server.nodemanager.containermanager.logaggregation.TestLogAggregationService

Subsystem	Report/Notes
Docker	Image:yetus/hadoop:e809691
JIRA Issue	YARN-4355
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12838034/YARN-4355.05.patch
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit findbugs checkstyle
uname	Linux 7dd455c2d9bb 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 / dbb133c
Default Java	1.8.0_101
findbugs	v3.0.0
checkstyle	https://builds.apache.org/job/PreCommit-YARN-Build/13829/artifact/patchprocess/diff-checkstyle-hadoop-yarn-project_hadoop-yarn_hadoop-yarn-server_hadoop-yarn-server-nodemanager.txt
unit	https://builds.apache.org/job/PreCommit-YARN-Build/13829/artifact/patchprocess/patch-unit-hadoop-yarn-project_hadoop-yarn_hadoop-yarn-server_hadoop-yarn-server-nodemanager.txt
Test Results	https://builds.apache.org/job/PreCommit-YARN-Build/13829/testReport/
modules	C: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager U: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager
Console output	https://builds.apache.org/job/PreCommit-YARN-Build/13829/console

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

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⌄ ◯ Naganarasimha G R added a comment - 13/Nov/16 01:49

+1,
Thanks for the explanation varun_saxena, went through the flow again and yes the fixes are proper, IMO its good enough to be committed, will wait for a day more so that jlowe or others has a chance to review.

⌄ ◯ Jonathan Hung added a comment - 14/Nov/16 18:46

Hi Naganarasimha, I also attached a branch-2.7 patch, if you could take a look and commit this one as well that would be great, thanks! (It is basically the same thing as the trunk patch, except `stat.getLocalPath().toPath()` becomes `ConverterUtils.getPathFromYarnURL(stat.getLocalPath()).`)

⌄ ◯ Hadoop QA added a comment - 14/Nov/16 18:58

❌ **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 0s	Docker mode activated.
-1	docker	8m 58s	Docker failed to build yetus/hadoop:c420dfe.

Subsystem	Report/Notes
JIRA Issue	~~YARN-4355~~
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12838816/YARN-4355-branch-2.7.001.patch
Console output	https://builds.apache.org/job/PreCommit-YARN-Build/13900/console
Powered by	Apache Yetus 0.4.0-SNAPSHOT http://yetus.apache.org

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⌄ ◯ Jonathan Hung added a comment - 14/Nov/16 19:36

Attaching branch-2.7 patch with diff from root directory

⌄ ◯ Hadoop QA added a comment - 14/Nov/16 19:42

❌ **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	0m 0s	Docker mode activated.
-1	docker	3m 57s	Docker failed to build yetus/hadoop:c420dfe.

Subsystem	Report/Notes
JIRA Issue	~~YARN-4355~~
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12838826/YARN-4355-branch-2.7.002.patch
Console output	https://builds.apache.org/job/PreCommit-YARN-Build/13903/console
Powered by	Apache Yetus 0.4.0-SNAPSHOT http://yetus.apache.org

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⌄ ◯ Hadoop QA added a comment - 14/Nov/16 21:10

❌ **-1 overall**

Vote	Subsystem	Runtime	Comment
0	reexec	13m 12s	Docker mode activated.
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 1 new or modified test files.
+1	mvninstall	6m 25s	branch-2.7 passed
+1	compile	0m 22s	branch-2.7 passed with JDK v1.8.0_111
+1	compile	0m 27s	branch-2.7 passed with JDK v1.7.0_111
+1	checkstyle	0m 18s	branch-2.7 passed
+1	mvnsite	0m 28s	branch-2.7 passed
+1	mvneclipse	0m 13s	branch-2.7 passed
+1	findbugs	0m 51s	branch-2.7 passed
+1	javadoc	0m 15s	branch-2.7 passed with JDK v1.8.0_111
+1	javadoc	0m 19s	branch-2.7 passed with JDK v1.7.0_111
+1	mvninstall	0m 22s	the patch passed
+1	compile	0m 20s	the patch passed with JDK v1.8.0_111
+1	javac	0m 20s	the patch passed
+1	compile	0m 24s	the patch passed with JDK v1.7.0_111
+1	javac	0m 24s	the patch passed
-0	checkstyle	0m 16s	hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager: The patch generated 3 new + 332 unchanged - 2 fixed = 335 total (was 334)
+1	mvnsite	0m 25s	the patch passed
+1	mvneclipse	0m 11s	the patch passed
-1	whitespace	0m 0s	The patch has 3336 line(s) that end in whitespace. Use git apply --whitespace=fix <<patch_file>>. Refer https://git-scm.com/docs/git-apply
-1	whitespace	1m 17s	The patch 102 line(s) with tabs.
+1	findbugs	0m 58s	the patch passed
+1	javadoc	0m 13s	the patch passed with JDK v1.8.0_111
+1	javadoc	0m 17s	the patch passed with JDK v1.7.0_111
+1	unit	5m 54s	hadoop-yarn-server-nodemanager in the patch passed with JDK v1.7.0_111.
+1	asflicense	0m 16s	The patch does not generate ASF License warnings.
		40m 29s	

Subsystem	Report/Notes
Docker	Image:yetus/hadoop:c420dfe
JIRA Issue	YARN-4355
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12838833/YARN-4355-branch-2.7.002.patch
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit findbugs checkstyle
uname	Linux 7fc877b5f519 3.13.0-93-generic #140-Ubuntu SMP Mon Jul 18 21:21:05 UTC 2016 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/hadoop/patchprocess/precommit/personality/provided.sh
git revision	branch-2.7 / 81bf6f2
Default Java	1.7.0_111
Multi-JDK versions	/usr/lib/jvm/java-8-oracle:1.8.0_111 /usr/lib/jvm/java-7-openjdk-amd64:1.7.0_111
findbugs	v3.0.0

checkstyle	https://builds.apache.org/job/PreCommit-YARN-Build/13906/artifact/patchprocess/diff-checkstyle-hadoop-yarn-project_hadoop-yarn_hadoop-yarn-server_hadoop-yarn-server-nodemanager.txt
whitespace	https://builds.apache.org/job/PreCommit-YARN-Build/13906/artifact/patchprocess/whitespace-eol.txt
whitespace	https://builds.apache.org/job/PreCommit-YARN-Build/13906/artifact/patchprocess/whitespace-tabs.txt
JDK v1.7.0_111 Test Results	https://builds.apache.org/job/PreCommit-YARN-Build/13906/testReport/
modules	C: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager U: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager
Console output	https://builds.apache.org/job/PreCommit-YARN-Build/13906/console
Powered by	Apache Yetus 0.4.0-SNAPSHOT http://yetus.apache.org

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Jason Darrell Lowe added a comment - 14/Nov/16 21:31

+1, latest trunk and 2.7 patches look good to me.

Naganarasimha G R added a comment - 15/Nov/16 04:10

Thanks jhung for 2.7 patch & jlowe for the review, committing it shortly !

Hudson added a comment - 15/Nov/16 10:41

SUCCESS: Integrated in Jenkins build Hadoop-trunk-Commit #10837 (See https://builds.apache.org/job/Hadoop-trunk-Commit/10837/)
YARN-4355. NPE while processing localizer heartbeat. Contributed by (naganarasimha_gr: rev 7ffb9943b8838a3bb56684e0722db40d800743a2)

- (edit) hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager/src/test/java/org/apache/hadoop/yarn/server/nodemanager/containermanager/localizer/TestResourceLocalizationService.java
- (edit) hadoop-yarn-project/hadoop-yarn/hadoop-yarn-server/hadoop-yarn-server-nodemanager/src/main/java/org/apache/hadoop/yarn/server/nodemanager/containermanager/localizer/ResourceLocalizationService.java

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Naganarasimha G R added a comment - 15/Nov/16 12:12

Thanks for the contribution varun_saxena and additionally supporting in rebase by jhung. Thanks for review from jlowe & templedf.

Brahma Reddy Battula added a comment - 15/Nov/16 12:42

Looks to be changes.txt updation is missed in branch-2.7, can you please update.?

Naganarasimha G R added a comment - 15/Nov/16 13:03

Thanks brahma, have done addendum commit with modifications for changes.txt

---

Varun Saxena added a comment - 15/Nov/16 13:11

Thanks Naganarasimha for the commit.
Thanks jhung for the rebase. And thanks templedf and jlowe for reviews.

Jonathan Hung added a comment - 15/Nov/16 17:43

Thanks everyone! Also I missed the CHANGES.txt addition, thanks brahmareddy for catching that.

Naganarasimha G R added a comment - 15/Nov/16 19:47

Its not exactly a contributor's responsibility actually while committing i missed it for 2.7 and in other upper versions just specifying in Fix version takes care of release notes. 🙂

People

Assignee:

Varun Saxena

Reporter:

Jason Darrell Lowe

Votes:

0 Vote for this issue

Watchers:

16 Start watching this issue

⌄ Dates

Created:

13/Nov/15 18:38

Updated:

06/Jan/17 08:06

Resolved:

15/Nov/16 12:10