



Enable stopped system services to be started during RM start

Details

Type:	Sub-task	Status:	RESOLVED
Priority:	Critical	Resolution:	Fixed
Affects Version/s:	None	Fix Version/s:	3.2.0, 3.1.1
Component/s:	None		
Labels:	None		
Target Version/s:	3.2.0, 3.1.1		

Description

With [YARN-8048](#), the RM can launch system services using the YARN service framework. If the service app is in a stopped state, user intervention is required to delete the service so that the RM can launch it again when the RM is restarted. It would be an improvement for the RM to be able to start a stopped system service.

Attachments

YARN-8411.01.patch	10 kB	12/Jun/18 02:38
YARN-8411.02.patch	11 kB	12/Jun/18 22:26

Activity

[Billie Rinaldi](#) added a comment - 11/Jun/18 18:33

One way to implement this would be to have the RM perform two operations, a save followed by a start. In the service framework, save plus start is the same as a launch operation. Then if the save failed because the service already existed, the RM could go on to perform the start operation.

[genericqa](#) added a comment - 12/Jun/18 03:52

+1 overall

Vote	Subsystem	Runtime	Comment
0	reexec	0m 32s	Docker mode activated.
			Prechecks
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 2 new or modified test files.
			trunk Compile Tests
0	mvndep	0m 11s	Maven dependency ordering for branch
+1	mvninstall	26m 29s	trunk passed
+1	compile	0m 32s	trunk passed
+1	checkstyle	0m 14s	trunk passed
+1	mvnsite	0m 56s	trunk passed
+1	shadedclient	12m 0s	branch has no errors when building and testing our client artifacts.
+1	findbugs	1m 7s	trunk passed
+1	javadoc	0m 33s	trunk passed
			Patch Compile Tests

0	mvndep	0m 9s	Maven dependency ordering for patch
+1	mvninstall	0m 53s	the patch passed
+1	compile	0m 28s	the patch passed
+1	javac	0m 28s	the patch passed
+1	checkstyle	0m 9s	the patch passed
+1	mvnsite	0m 47s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	shadedclient	12m 22s	patch has no errors when building and testing our client artifacts.
+1	findbugs	1m 20s	the patch passed
+1	javadoc	0m 30s	the patch passed
			Other Tests
+1	unit	10m 37s	hadoop-yarn-services-core in the patch passed.
+1	unit	1m 30s	hadoop-yarn-services-api in the patch passed.
+1	asflicense	0m 22s	The patch does not generate ASF License warnings.
		71m 44s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:abb62dd
JIRA Issue	YARN-8411
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12927422/YARN-8411.01.patch
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle
uname	Linux 392bd258ce79 3.13.0-139-generic #188-Ubuntu SMP Tue Jan 9 14:43:09 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / 2b2f672
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_171
findbugs	v3.1.0-RC1
Test Results	https://builds.apache.org/job/PreCommit-YARN-Build/21008/testReport/
Max. process+thread count	758 (vs. ulimit of 10000)
modules	C: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-applications/hadoop-yarn-services/hadoop-yarn-services-core hadoop-yarn-project/hadoop-yarn/hadoop-yarn-applications/hadoop-yarn-services/hadoop-yarn-services-api U: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-applications/hadoop-yarn-services
Console output	https://builds.apache.org/job/PreCommit-YARN-Build/21008/console
Powered by	Apache Yetus 0.8.0-SNAPSHOT http://yetus.apache.org

This message was automatically generated.

▼  Eric Yang added a comment - 12/Jun/18 20:43

billie.rinaldi Thank you for the patch, the approach looks good. One minor nitpick:

```
try {
    serviceClient.actionBuild(service);
} catch (Exception e) {
    LOG.info("Got exception saving {}, will attempt to start " +
            "service", service.getName());
}
ApplicationId applicationId = serviceClient
```

```
.actionStartAndGetId(service.getName());
return applicationId;
```

The information logging looks like an error. It will be more informative, to catch the already exist exception, and change the message to:

```
"Service {} already exist, will attempt to start service"
```

Billie Rinaldi added a comment - 12/Jun/18 22:30

Thanks for the review, [eyang](#)! The new patch attempts to distinguish an exception due to the service already existing, and in that case logs an informative message. If it receives a different type of exception, it will log it with the "Got exception" message and will not go on to try to start the service.


genericqa added a comment - 13/Jun/18 00:17

✓ +1 overall


Vote	Subsystem	Runtime	Comment
0	reexec	0m 35s	Docker mode activated.
			Prechecks
+1	@author	0m 0s	The patch does not contain any @author tags.
+1	test4tests	0m 0s	The patch appears to include 2 new or modified test files.
			trunk Compile Tests
0	mvndep	0m 12s	Maven dependency ordering for branch
+1	mvninstall	26m 17s	trunk passed
+1	compile	0m 33s	trunk passed
+1	checkstyle	0m 14s	trunk passed
+1	mvnsite	0m 55s	trunk passed
+1	shadedclient	12m 12s	branch has no errors when building and testing our client artifacts.
+1	findbugs	1m 8s	trunk passed
+1	javadoc	0m 33s	trunk passed
			Patch Compile Tests
0	mvndep	0m 9s	Maven dependency ordering for patch
+1	mvninstall	0m 52s	the patch passed
+1	compile	0m 28s	the patch passed
+1	javac	0m 28s	the patch passed
+1	checkstyle	0m 9s	the patch passed
+1	mvnsite	0m 47s	the patch passed
+1	whitespace	0m 0s	The patch has no whitespace issues.
+1	shadedclient	12m 18s	patch has no errors when building and testing our client artifacts.
+1	findbugs	2m 15s	the patch passed
+1	javadoc	0m 29s	the patch passed
			Other Tests
+1	unit	10m 55s	hadoop-yarn-services-core in the patch passed.
+1	unit	1m 33s	hadoop-yarn-services-api in the patch passed.
+1	asflicense	0m 25s	The patch does not generate ASF License warnings.
		73m 6s	

Subsystem	Report/Notes
Docker	Client=17.05.0-ce Server=17.05.0-ce Image:yetus/hadoop:abb62dd
JIRA Issue	YARN-8411
JIRA Patch URL	https://issues.apache.org/jira/secure/attachment/12927549/YARN-8411.02.patch
Optional Tests	asflicense compile javac javadoc mvninstall mvnsite unit shadedclient findbugs checkstyle
uname	Linux 5c4cbc57a9eb 3.13.0-139-generic #188-Ubuntu SMP Tue Jan 9 14:43:09 UTC 2018 x86_64 x86_64 x86_64 GNU/Linux
Build tool	maven
Personality	/testptch/patchprocess/precommit/personality/provided.sh
git revision	trunk / aeaf9fe
maven	version: Apache Maven 3.3.9
Default Java	1.8.0_171
findbugs	v3.1.0-RC1
Test Results	https://builds.apache.org/job/PreCommit-YARN-Build/21019/testReport/
Max. process+thread count	758 (vs. ulimit of 10000)
modules	C: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-applications/hadoop-yarn-services/hadoop-yarn-services-core hadoop-yarn-project/hadoop-yarn/hadoop-yarn-applications/hadoop-yarn-services/hadoop-yarn-services-api U: hadoop-yarn-project/hadoop-yarn/hadoop-yarn-applications/hadoop-yarn-services
Console output	https://builds.apache.org/job/PreCommit-YARN-Build/21019/console
Powered by	Apache Yetus 0.8.0-SNAPSHOT http://yetus.apache.org

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▼  [Eric Yang](#) added a comment - 13/Jun/18 01:28

+1 looks good to me. I will commit patch 002 tomorrow if no objections.


▼  [Rohith Sharma K S](#) added a comment - 13/Jun/18 04:14

thanks [billie.rinaldi](#) for the patch. It looks good to me as well.

I have one generic doubt on start operations, does service start identifies if service is already running? Because in system services services are long running and in case of RM restart or HA switch, by default we are going to start services.

▼  [Billie Rinaldi](#) added a comment - 13/Jun/18 13:54

Thanks for taking a look, [rohithsharma](#)! Yes, start should have the same effect as a launch operation. If the service is already running, it will get an error. If it's not running, it will start running. Specifically, in ServiceClient#verifyNoLiveAppInRM (used by both start and launch operations), it uses YarnClient to find out whether there are any live yarn-service applications tagged with the specified service name, and if there are it throws a YarnException.

▼  [Eric Yang](#) added a comment - 13/Jun/18 23:11

Thank you for the patch, [billie.rinaldi](#). I just committed this.


▼  [Hudson](#) added a comment - 13/Jun/18 23:32

SUCCESS: Integrated in Jenkins build Hadoop-trunk-Commit #14423 (See <https://builds.apache.org/job/Hadoop-trunk-Commit/14423/>)

[YARN-8411](#). Restart stopped system service during RM start. (eyang: rev 69b05968974994c6e22d6562a67b9392d1700094)

- (edit) hadoop-yarn-project/hadoop-yarn/hadoop-yarn-applications/hadoop-yarn-services/hadoop-yarn-services-api/src/main/java/org/apache/hadoop/yarn/service/client/SystemServiceManagerImpl.java
- (edit) hadoop-yarn-project/hadoop-yarn/hadoop-yarn-applications/hadoop-yarn-services/hadoop-yarn-services-api/src/main/java/org/apache/hadoop/yarn/service/webapp/ApiServer.java
- (edit) hadoop-yarn-project/hadoop-yarn/hadoop-yarn-applications/hadoop-yarn-services/hadoop-yarn-services-api/src/test/java/org/apache/hadoop/yarn/service/ServiceClientTest.java

- (edit) `hadoop-yarn-project/hadoop-yarn/hadoop-yarn-applications/hadoop-yarn-services/hadoop-yarn-services-api/src/test/java/org/apache/hadoop/yarn/service/client/TestSystemServiceManagerImpl.java`
- (edit) `hadoop-yarn-project/hadoop-yarn/hadoop-yarn-applications/hadoop-yarn-services/hadoop-yarn-services-core/src/main/java/org/apache/hadoop/yarn/service/client/ServiceClient.java`

▼  Billie Rinaldi added a comment - 14/Jun/18 20:57

Thanks, [eyang](#)!

▼ **People**

Assignee:

 Billie Rinaldi

Reporter:

 Billie Rinaldi

Votes:

 0 Vote for this issue

Watchers:

 4 Start watching this issue

▼ **Dates**

Created:

11/Jun/18 18:32

Updated:

14/Jun/18 20:57

Resolved:

13/Jun/18 23:11