

Issues in TimeLine Server

(used for fetching generic application history information)

1 Revert back the changes for YARN-1982 or fix few issues

In my opinion it would be better to revert back the changes for YARN-1982, based on following view points.

- Irrespective its timeline based or old AHS (File based) finally its Application history server for end user, from which they can get the history applications information so I feel "**historyserver**" suits it.
- Irrespective of what CLI command (*timelineserver* or *historyserver*) is executed, based on configuration parameters like "*yarn.timeline-service.generic-application-history.enabled*" and "*yarn.timeline-service.generic-application-history.store-class*" *ApplicationHistoryServer* decides which *ApplicationHistoryManager* to be launched by. So even if we execute CLI command "*./yarn-daemon.sh --daemon start timelineserver*", *ApplicationHistoryServer* might still decide to run the older *ApplicationHistoryManagerImpl* instead of *ApplicationHistoryManagerOnTimelineStore*.

If it cannot be reverted because of any other views then following needs to be taken care:

```
$ ./yarn-daemon.sh start historyserver
```

DEPRECATED: Use of this command to start the timeline server is deprecated.

Instead use the timelineserver command for it.

Starting the History Server anyway...

```
$ jps
```

```
17853 Jps
```

```
17803 ApplicationHistoryServer
```

```
$ ./yarn-daemon.sh stop historyserver
```

DEPRECATED: Use of this command to start the timeline server is deprecated.

Instead use the timelineserver command for it.

Starting the History Server anyway...

```
$ ./yarn-daemon.sh --daemon start timelineserver
```

```
naga@hghoulaslx394:~/hadoop_os/sbin> jps
```

```
17483 ApplicationHistoryServer
```

```
17568 Jps
```

- I. Whatever the CLI command user executes is **historyserver** or **timelineserver** it looks like **ApplicationHistoryServer** only run. So can we modify the name of the class **ApplicationHistoryServer** to **TimelineHistoryServer** (or any other suitable name as it seems like any command user runs **ApplicationHistoryServer** is started)
- II. Instead of the "Starting the History Server anyway..." deprecated msg, can we have "Starting the Timeline History Server anyway...".
- III. Based on start or stop, deprecated message should get modified to "Starting the Timeline History Server anyway..." or "Stopping the Timeline History Server anyway...".

2 Issues in creation of AHS Manager by ApplicationHistoryServer

- I. ApplicationHistoryServer's createApplicationHistoryManager(Configuration) depends on "yarn.timeline-service.generic-application-history.store-class" but it should be based on "yarn.timeline-service.generic-application-history.enabled" or both
- II. There can be possibility that configurations for old AHS ("yarn.timeline-service.generic-application-history.store-class" & "yarn.timeline-service.generic-application-history.enabled") and for timeline history server ("yarn.timeline-service.enabled" and "yarn.resourcemanager.system-metrics-publisher.enabled") are not enabled, So ApplicationHistoryServer should log error message and launching of ApplicationHistoryServer service should fail.

3 Documentation issue:

- I. Time Line Server documentation need to capture how the system metrics needs to be configured to get the "Generic information about completed applications" in time line server but seems like information for this was missing in the documentation "yarn.timeline-service.enabled" and "yarn.resourcemanager.system-metrics-publisher.enabled" needs to be enabled to get the application information from timeline server. If we start timeline server with configurations as mentioned in the documentation "yarn.timeline-service.generic-application-history.enabled" to false and "yarn.timeline-service.generic-application-history.store-class" was throwing exception org.apache.hadoop.yarn.exceptions.ApplicationNotFoundException: The entity for application application 1415541591033 0001 doesn't exist in the timeline store

- II. We can capture the configurations required for older AHS to work in a separate section ***“yarn.timeline-service.generic-application-history.enabled” to true*** and ***“yarn.timeline-service.generic-application-history.store-class”***
- III. Based on Issue1 if we choose to decide not to revert the changes YARN-1982 , then “Running Timeline server” section need to capture CLI command as ***“yarn timelineserver”*** instead of ***“yarn historyserver”***