

1. abstraction:ApplicationId
 2. crash point:before read
 3. but type:data race
-
1. timing:crash

```
1  /*system version:hadoop-2.8.0
2  *
   org.apache.hadoop.yarn.server.resourcemanager.rmapp.attempt.RM
   AppAttemptMetrics.getAggregateAppResourceUsage#128
3  * need calling contex, five callers
4  */
5  public AggregateAppResourceUsage
   getAggregateAppResourceUsage() {
6      long memorySeconds = finishedMemorySeconds.get();
7      long vcoreSeconds = finishedVcoreSeconds.get();
8
9      // Only add in the running containers if this is the
   active attempt.
10     RMAppAttempt currentAttempt = rmContext.getRMApps();//crash
   point
11
   .get(attemptId.getApplicationId()).getCurrentAppAttempt();
12     if (currentAttempt.getAppAttemptId().equals(attemptId)) {
13         ApplicationResourceUsageReport appResUsageReport =
   rmContext
14
   .getScheduler().getAppResourceUsageReport(attemptId);
15         if (appResUsageReport != null) {
16             memorySeconds += appResUsageReport.getMemorySeconds();
17             vcoreSeconds += appResUsageReport.getVcoreSeconds();
18         }
19     }
20     return new AggregateAppResourceUsage(memorySeconds,
   vcoreSeconds);
21 }
```

