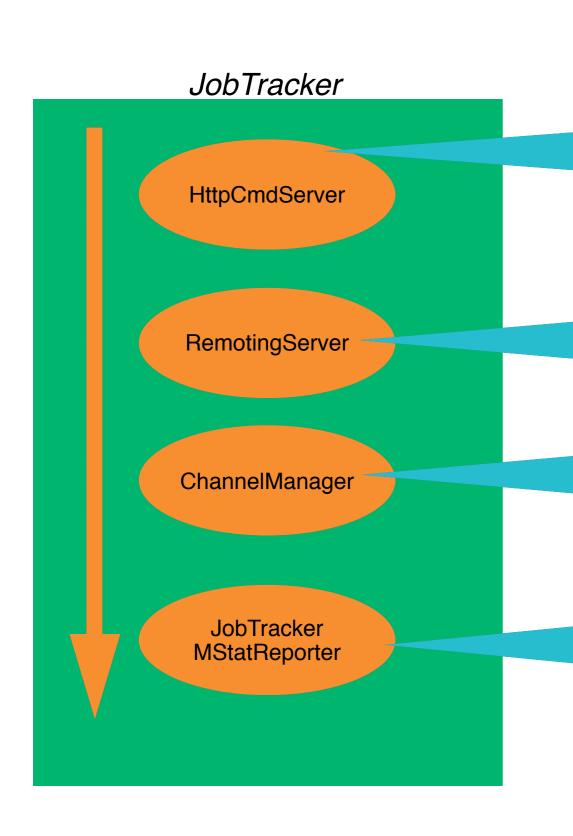
LTS

LTS ANALYSE

JobTracker start flow
TaskTracker start flow
Job Client start flow
Submit job
Cancel job
Job tracker <--> task tracker
Job tracker ask task tracker (dead job check)

JOB TRACKER START FLOW



主要用于curl StatusCheckHttpCmd JVMInfoGetHttpCmd LoadJobHttpCmd AddJobHttpCmd

主要用户和jobclient以及tasktracker进行交互

- . JobSubmitProcessor (JobClient)
- . JobCompletedProcessor (TaskTracker)
- . JobPullProcessor (TaskTracker)
- . JobBizLogProcessor (TaskTracker)
- . JobCancelProcessor (JobClient)

用来管理*channel clientChannelMap taskTrackerChannelMap offlineTaskTrackerMap*

JobTracker 的监控中心,包括JVM等节点常规信息,以及接受的任务数分发出去的任务数执行成功个数执行失败个数处设执行个数执行字常个数依复死任务数

TASK TRACKER START FLOW

TaskTracker HttpCmdServer TaskTracker **MStatReporter** RemotingClient HeartBeatMonitor StopWorkingMonitor

主要用于curl StatusCheckHttpCmd JVMInfoGetHttpCmd JobTerminateCmd 终止某个正在执行的任务

主要用来监控TaskTracker的压力

- * 1. 任务执行量,任务执行成功数,任务执行失败数
- * 2. FailStore 容量
- * 3. 内存占用情况
- * 定时向 monitor 发送,方便生成图表在LTS-Admin查看,预警等

(执行成功个数, 执行失败个数, 延迟执行个数, 执行异常个数, 总的运行时间)

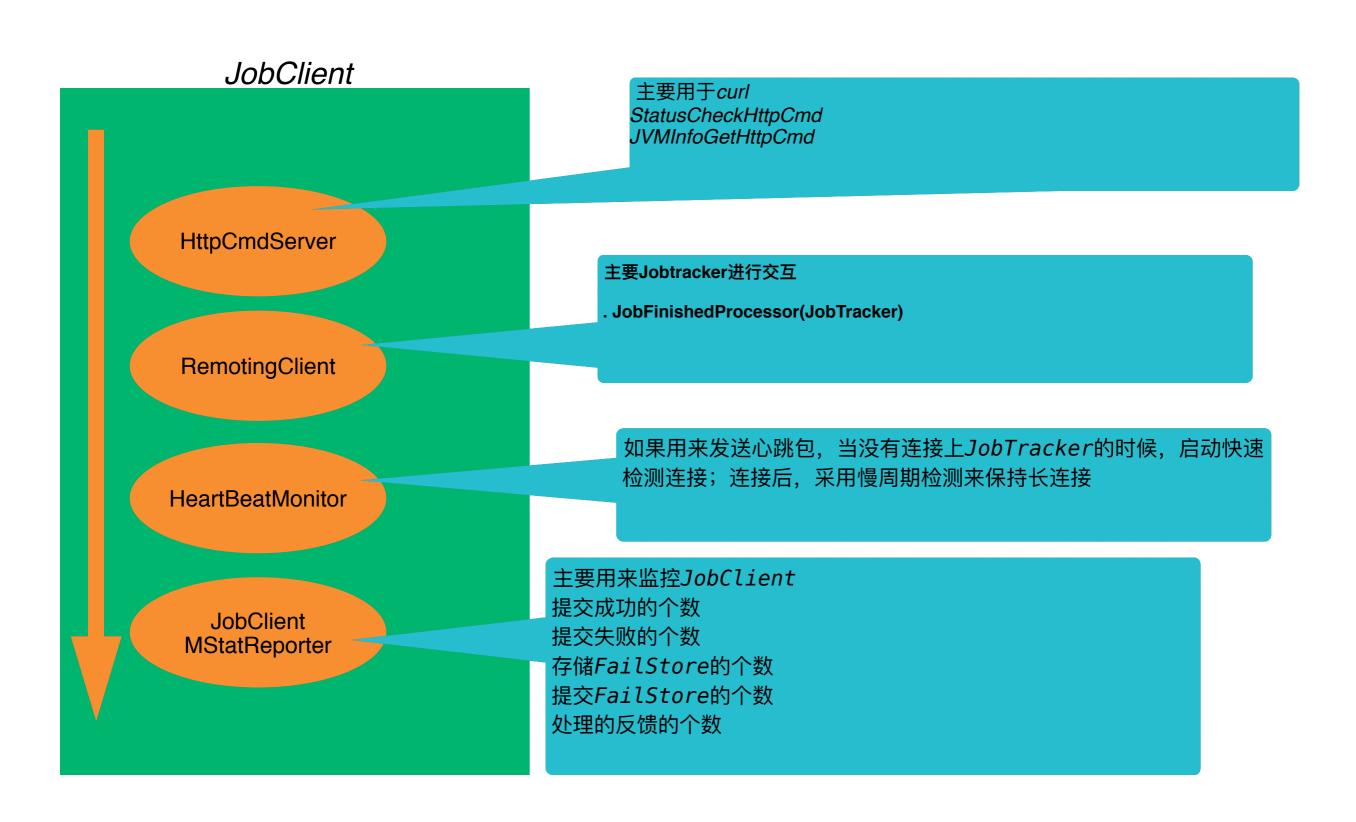
主要Jobtracker进行交互

- . JobPushProcessor (JobTracker)
- . JobAskProcessor (?)

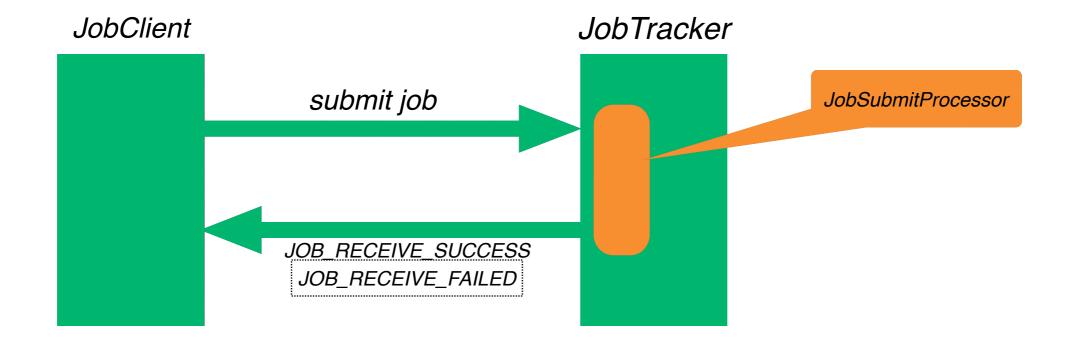
如果用来发送心跳包,当没有连接上JobTracker的时候,启动快速检测连接;连接后,采用慢周期检测来保持长连接

当TaskTracker和JobTracker断开超过了一段时间, TaskTracker立即停止当前的所有任务

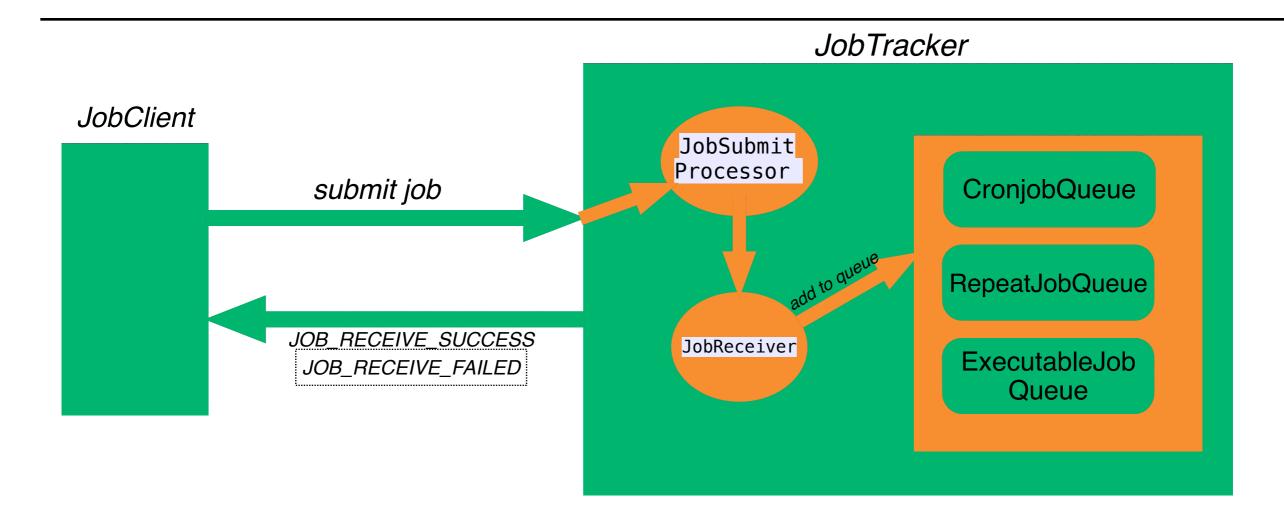
JOB CLIENT START FLOW



SUBMIT JOB



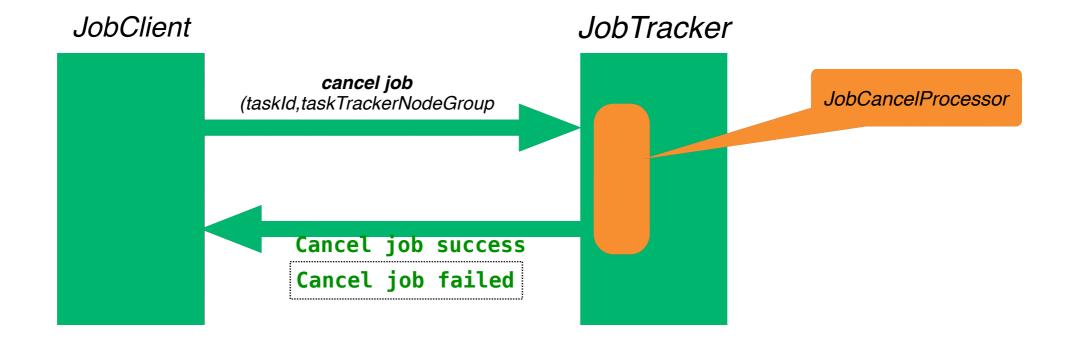
SUBMIT JOB



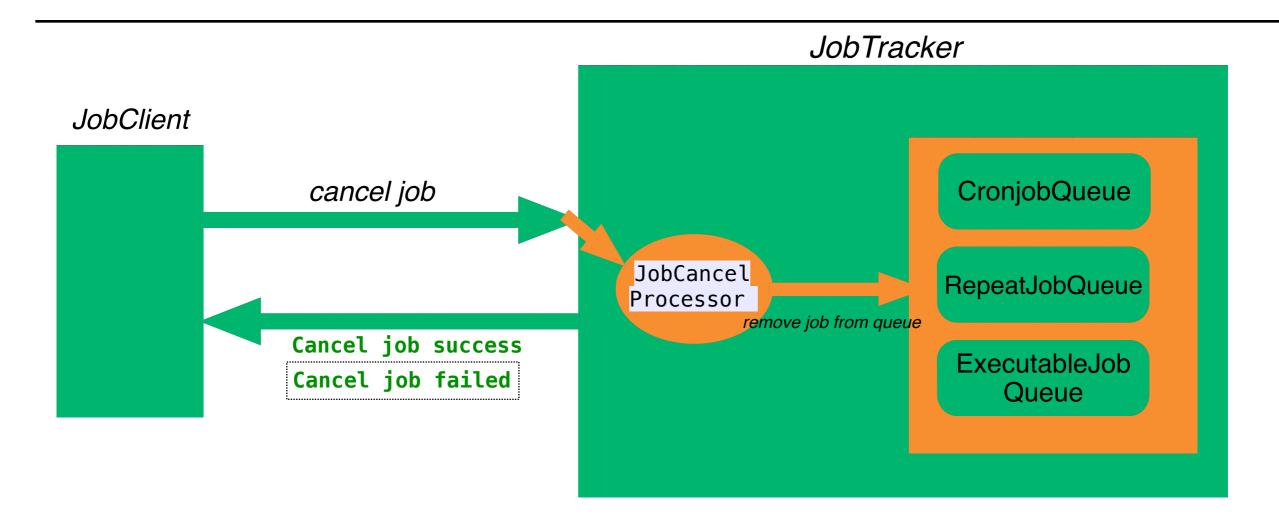
Job 大体上分为三类: Cron Job, Repeat Job, 只运行一次的Job:

- 只运行一次的Job, 提交后此Job信息直接加入ExecutableJobQueue
- Cron Job, 提交后首先添加Job信息到CronJobQueue, 然后将此Job信息加入到ExecutableJobQueue
- Repeat Job, 略

CANCEL JOB



CANCEL JOB



Note: 如果要删除的job不在cronJobQueue里,也没有在executableJobQueue里,那么返回JOB_CANCEL_FAILED,提示: Job may be running

JOB TRACKER <-> TASK TRACKER

- * 用来向JobTracker去取任务
- 1. 会订阅JobTracker的可用,不可用消息主题的订阅
- 2. 只有当JobTracker可用的时候才会去Pull任务
- 3. Pull只是会给JobTracker发送一个通知 **JobTracker TaskTracker** send JOB_PULL request JobPullMachine JobPull Processor send PUSH JOB request JobPush JobCompleted Processor Processor RunnerPool JobStatBiz JobProcBiz PushNewJobBiz execute JobRunnerCallback runComplete ClientNotifier JobRetryHandler JobFinishHandler checkInterrupted JobBizLog will write log Processor send BIZ_LOG_SEND request

JOB TRACKER ASK TASK TRACKER

