

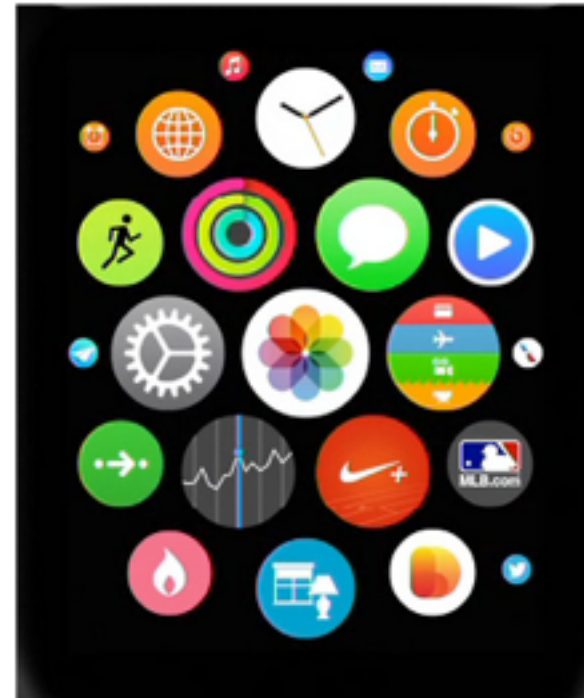
MobSpark



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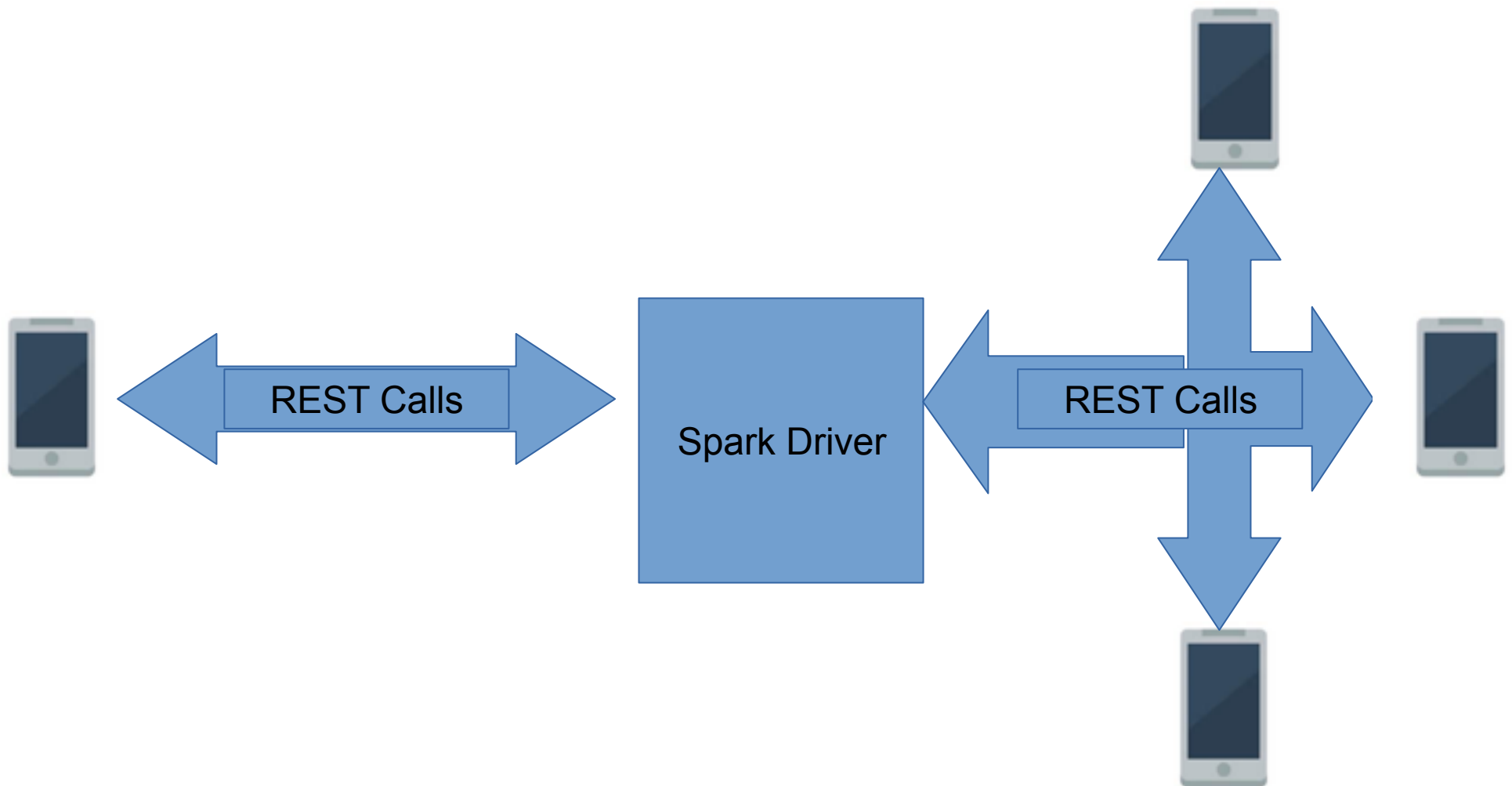


Application



Idea

- Trigger a job from the mobile and the spark job runs on the cluster of nodes(mobile devices).



Journey

- We first looked at Spark's hidden RESTful API

```
./bin/spark-submit \  
  --class org.apache.spark.examples.SparkPi \  
  --master spark://my-cluster:7077 \  
  --deploy-mode cluster \  
  /path/to/examples.jar 1000
```

Request

```
curl -X POST http://spark-cluster-ip:6066/v1/submissions/create --header "Content-Type:application/json;charset=UTF-8" --data '{
```

```
"action" : "CreateSubmissionRequest",
"appArgs" : [ "myAppArgument1" ],
"appResource" : "file:/myfilepath/spark-job-1.0.jar",
"clientSparkVersion" : "1.5.0",
"environmentVariables" : {
"SPARK_ENV_LOADED" : "1"
},
"mainClass" : "com.mycompany.MyJob",
"sparkProperties" : {
"spark.jars" : "file:/myfilepath/spark-job-1.0.jar",
"spark.driver.supervise" : "false",
"spark.app.name" : "MyJob",
"spark.eventLog.enabled": "true",
"spark.submit.deployMode" : "cluster",
"spark.master" : "spark://spark-cluster-ip:6066"
}
}'
```

Response

```
{
"action" : "CreateSubmissionResponse",
"message" : "Driver successfully submitted as driver-20151008145126-0000",
"serverSparkVersion" : "1.5.0",
"submissionId" : "driver-20151008145126-0000",
"success" : true
}
```

Stack Used

- Android Studio
- Apache Spark
- Android Runtime (ART) - already supports developing applications using Scala, as evidenced by [Scala IDE article on Android development](http://scala-ide.org/docs/tutorials/play/index.html) (<http://scala-ide.org/docs/tutorials/play/index.html>).
- Spark JobServer - REST job server for Apache Spark (<https://github.com/spark-jobserver/spark-jobserver>)

Thank You!

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