

# 分布式查询实验：

1.两个实验结果的截屏，即 ./runBenchmark.sh prop.oceanbase命令后的结果

第一个实验结果：

```
obtest@10-24-14-215:~/stu_7/run
18:43:48,927 [main] INFO jTPCC : Term-00, (c) 2003, Raul Barbosa
18:43:48,927 [main] INFO jTPCC : Term-00, (c) 2004-2016, Denis Lussier
18:43:48,928 [main] INFO jTPCC : Term-00, (c) 2016, Jan Wieck
18:43:48,930 [main] INFO jTPCC : Term-00,
18:43:48,930 [main] INFO jTPCC : Term-00, db=oceanbase
18:43:48,930 [main] INFO jTPCC : Term-00, driver=com.mysql.jdbc.Driver
18:43:48,930 [main] INFO jTPCC : Term-00, conn=jdbc:mysql://10.24.14.215:2883/tpcc_5?useSSL=false&rewriteBatchedStatements=true&allowMultiQueries=true&useLocalSessionState=true&useUnicode=true&characterEncoding=utf-8&socketTimeout=300000018:43:48,930 [main] INFO jTPCC : Term-00, user=root@stu_7
18:43:48,930 [main] INFO jTPCC : Term-00, warehouses=5
18:43:48,931 [main] INFO jTPCC : Term-00, terminals=5
18:43:48,932 [main] INFO jTPCC : Term-00, runMins=1
18:43:48,932 [main] INFO jTPCC : Term-00, limitTxnsPerMin=0
18:43:48,932 [main] INFO jTPCC : Term-00, terminalWarehouseFixed=true
18:43:48,932 [main] INFO jTPCC : Term-00, newOrderWeight=0
18:43:48,932 [main] INFO jTPCC : Term-00, paymentWeight=0
18:43:48,932 [main] INFO jTPCC : Term-00, orderStatusWeight=0
18:43:48,933 [main] INFO jTPCC : Term-00, deliveryWeight=0
18:43:48,933 [main] INFO jTPCC : Term-00, stockLevelWeight=100
18:43:48,933 [main] INFO jTPCC : Term-00,
18:43:48,933 [main] INFO jTPCC : Term-00, resultDirectory=null
18:43:48,933 [main] INFO jTPCC : Term-00, osCollectorScript=null
18:43:48,933 [main] INFO jTPCC : Term-00,
18:43:49,185 [main] INFO jTPCC : Term-00, C value for C_LAST during load: 143
18:43:49,185 [main] INFO jTPCC : Term-00, C value for C_LAST this run: 64
18:43:49,185 [main] INFO jTPCC : Term-00,
Term-00, Running Average tpmTOTAL: 49323.17 Current tpmTOTAL: 591888 Memory Usage: 60MB / 228MB
18:44:49,261 [Thread-3] INFO jTPCC : Term-00,
18:44:49,262 [Thread-3] INFO jTPCC : Term-00,
18:44:49,262 [Thread-3] INFO jTPCC : Term-00, Measured tpmC (NewOrders) = 0.0
18:44:49,262 [Thread-3] INFO jTPCC : Term-00, Measured tpmTOTAL = 49323.88
18:44:49,262 [Thread-3] INFO jTPCC : Term-00, Session Start = 2021-12-29 18:43:49
18:44:49,262 [Thread-3] INFO jTPCC : Term-00, Session End = 2021-12-29 18:44:49
18:44:49,262 [Thread-3] INFO jTPCC : Term-00, Transaction Count = 49327
[obtest@10-24-14-215 run]$
```

第二个实验结果：

```
obtest@10-24-14-215:~/stu_7/run
18:16:29,736 [main] INFO jTPCC : Term-00, (c) 2003, Raul Barbosa
18:16:29,736 [main] INFO jTPCC : Term-00, (c) 2004-2016, Denis Lussier
18:16:29,738 [main] INFO jTPCC : Term-00, (c) 2016, Jan Wieck
18:16:29,738 [main] INFO jTPCC : Term-00,
18:16:29,738 [main] INFO jTPCC : Term-00, db=oceanbase
18:16:29,738 [main] INFO jTPCC : Term-00, driver=com.mysql.jdbc.Driver
18:16:29,738 [main] INFO jTPCC : Term-00, conn=jdbc:mysql://10.24.14.215:2883/tpcc_5_1?useSSL=false&rewriteBatchedStatements=true&useLocalSessionState=true&useUnicode=true&characterEncoding=utf-8&socketTimeout=3000000
18:16:29,738 [main] INFO jTPCC : Term-00, user=root@stu_7
18:16:29,738 [main] INFO jTPCC : Term-00, warehouses=5
18:16:29,738 [main] INFO jTPCC : Term-00, terminals=5
18:16:29,738 [main] INFO jTPCC : Term-00, runMins=1
18:16:29,739 [main] INFO jTPCC : Term-00, limitTxnsPerMin=0
18:16:29,740 [main] INFO jTPCC : Term-00, terminalWarehouseFixed=true
18:16:29,740 [main] INFO jTPCC : Term-00, newOrderWeight=0
18:16:29,740 [main] INFO jTPCC : Term-00, paymentWeight=0
18:16:29,740 [main] INFO jTPCC : Term-00, orderStatusWeight=0
18:16:29,740 [main] INFO jTPCC : Term-00, deliveryWeight=0
18:16:29,740 [main] INFO jTPCC : Term-00, stockLevelWeight=100
18:16:29,740 [main] INFO jTPCC : Term-00,
18:16:29,740 [main] INFO jTPCC : Term-00, resultDirectory=null
18:16:29,740 [main] INFO jTPCC : Term-00, osCollectorScript=null
18:16:29,740 [main] INFO jTPCC : Term-00,
18:16:29,971 [main] INFO jTPCC : Term-00, C value for C_LAST during load: 143
18:16:29,971 [main] INFO jTPCC : Term-00, C value for C_LAST this run: 215
18:16:29,971 [main] INFO jTPCC : Term-00,
Term-00, Running Average tpmTOTAL: 12433.06 Current tpmTOTAL: 149244 Memory Usage: 8MB / 238MB
18:17:30,072 [Thread-3] INFO jTPCC : Term-00,
18:17:30,072 [Thread-3] INFO jTPCC : Term-00,
18:17:30,072 [Thread-3] INFO jTPCC : Term-00, Measured tpmC (NewOrders) = 0.0
18:17:30,072 [Thread-3] INFO jTPCC : Term-00, Measured tpmTOTAL = 12431.09
18:17:30,072 [Thread-3] INFO jTPCC : Term-00, Session Start = 2021-12-29 18:16:30
18:17:30,073 [Thread-3] INFO jTPCC : Term-00, Session End = 2021-12-29 18:17:30
18:17:30,073 [Thread-3] INFO jTPCC : Term-00, Transaction Count = 12439
[obtest@10-24-14-215 run]$
```

2.对于实验结果的分析（对于两个实验的tpmTOTAL结果的分析）

第一次实验tpmTOTAL结果为49323，第二次实验tpmTOTAL结果12439，单点实验结果比分布式查询实验结果高。正常来说，分布式查询的性能要比单点的查询性能要高，它没有两阶段提交，节点之间互相通信，并行处理请求，那么在这次实验中，单点实验结果比分布式查询实验结果高主要是因为分布式的结点没有达到它的负载上限。

