

测试环境搭建：

文件：

- 1、CommServer 文件夹里面的 STNetEngine-TL.exe 是数据服务端，负责数据的接收和解析
- 2、station_demo 是 QTouch 建的单站工程，里面自带数据主动上传的通信部分（暂以 modbusTCP 命名）

部署服务器端：

1、CommServer 这个文件夹，自带了运行环境，其中 project_dir 是保存的各个站的工程文件夹，为了记录方便文件夹以站号来命名，每一个站相当于对应一个上传的客户端。测试的时候每个工程文件夹里面的 RunConfig.xml 中 unitId 字段需配置为响应的站号，此部分可以手动修改，也可以用 QTouch 工程管理其修改。

2、CommServer 文件夹中的 config.ini 文件是配置服务器端参数 local_ip 网卡 ip 地址，local_port 监听的端口

3、手动运行 STNetEngine-TL.exe，即完成服务器端的部署工作。为了保证测试效率，目前只提供了后台打印的功能，日志的部分暂做了屏蔽。

部署客户端：

1、station_demo 创建了 12000 点的数据量，script.exe 是负责产生模拟的随机数。

2、修改 modbusTCP 的 ip 和端口，指向 CommServer 服务端。

XMLConfig.xml 中 buildingid 字段为上传站号，服务器端需与之对应

3、以上修改可以在 QTouch 工程管理器中修改

4、运行 QTouch 工程

(一)

主服务器端：负责数据接收解析

处理器: Intel(R) Celeron(R) CPU 1000M @ 1.80GHz 1.80 GHz
安装内存(RAM): 4.00 GB (2.36 GB 可用)
系统类型: 32 位操作系统

单站：负责数据上送（1 台）

制造商: 清华同方
型号: 同方系列微机
处理器: Intel(R) Core(TM) i5-6400 CPU @ 2.70GHz 2.71 GHz
已安装的内存(RAM): 4.00 GB
系统类型: 64 位操作系统，基于 x64 的处理器

连接方式：无线

```
"2017-03-23 17:40:27.195 append recv station = 0 Len = 2920 byte realdata"  
"2017-03-23 17:40:27.195 append recv station = 0 Len = 26752 byte realdata"  
"2017-03-23 17:40:27.618 parse station = 0 12000 data shengyu = 0"  
"2017-03-23 17:40:28.455 append recv station = 0 Len = 2920 byte realdata"  
"2017-03-23 17:40:28.491 append recv station = 0 Len = 16384 byte realdata"  
"2017-03-23 17:40:28.493 append recv station = 0 Len = 47856 byte realdata"  
"2017-03-23 17:40:28.508 append recv station = 0 Len = 1460 byte realdata"  
"2017-03-23 17:40:28.509 append recv station = 0 Len = 3392 byte realdata"  
"2017-03-23 17:40:28.631 parse station = 0 12000 data shengyu = 0"  
"2017-03-23 17:40:29.637 append recv station = 0 Len = 1460 byte realdata"  
"2017-03-23 17:40:29.638 append recv station = 0 Len = 1460 byte realdata"  
"2017-03-23 17:40:29.639 append recv station = 0 Len = 4380 byte realdata"  
"2017-03-23 17:40:29.640 append recv station = 0 Len = 2920 byte realdata"  
"2017-03-23 17:40:29.640 append recv station = 0 Len = 11680 byte realdata"  
"2017-03-23 17:40:29.640 append recv station = 0 Len = 1460 byte realdata"  
"2017-03-23 17:40:29.642 append recv station = 0 Len = 1460 byte realdata"  
"2017-03-23 17:40:29.643 append recv station = 0 Len = 5840 byte realdata"  
"2017-03-23 17:40:29.643 append recv station = 0 Len = 1460 byte realdata"  
"2017-03-23 17:40:29.643 append recv station = 0 Len = 1460 byte realdata"  
"2017-03-23 17:40:29.644 append recv station = 0 Len = 10220 byte realdata"  
"2017-03-23 17:40:29.645 append recv station = 0 Len = 9652 byte realdata"  
"2017-03-23 17:40:29.646 append recv station = 0 Len = 2860 byte realdata"  
"2017-03-23 17:40:29.664 append recv station = 0 Len = 15700 byte realdata"  
"2017-03-23 17:40:30.160 parse station = 0 12000 data shengyu = 0"
```

分析：1、传输的总数据点 12000

2、发送端整个数据的准备时间大概需要 1s

3、数据传输过程耗时大概在 50ms 以内

4、数据解析的频率大概需要 1s

5、整个数据发送到接收解析耗时在 1.5s

(二)

主服务器端：负责数据接收解析

处理器: Intel(R) Celeron(R) CPU 1000M @ 1.80GHz 1.80 GHz
安装内存(RAM): 4.00 GB (2.36 GB 可用)
系统类型: 32 位操作系统

单站：负责数据上送（2 台）

1、 制造商: 清华同方
型号: 同方系列微机
处理器: Intel(R) Core(TM) i5-6400 CPU @ 2.70GHz 2.71 GHz
已安装的内存(RAM): 4.00 GB
系统类型: 64 位操作系统, 基于 x64 的处理器

1、

处理器: Intel(R) Core(TM) i3-5005U CPU @ 2.00GHz 2.00 GHz
安装内存(RAM): 4.00 GB (3.74 GB 可用)
系统类型: 64 位操作系统

2、

连接方式：无线

```

"2017-03-23 17:43:51.700 append rcv station = 0 Len = 2920 byte realdata"
"2017-03-23 17:43:51.704 append rcv station = 0 Len = 2920 byte realdata"
"2017-03-23 17:43:51.705 append rcv station = 0 Len = 8760 byte realdata"
"2017-03-23 17:43:51.705 append rcv station = 0 Len = 5840 byte realdata"
"2017-03-23 17:43:51.705 append rcv station = 0 Len = 2920 byte realdata"
"2017-03-23 17:43:51.706 append rcv station = 0 Len = 8760 byte realdata"
"2017-03-23 17:43:51.706 append rcv station = 0 Len = 2920 byte realdata"
"2017-03-23 17:43:51.707 append rcv station = 0 Len = 7300 byte realdata"
"2017-03-23 17:43:51.707 append rcv station = 0 Len = 4380 byte realdata"
"2017-03-23 17:43:51.708 append rcv station = 0 Len = 5840 byte realdata"
"2017-03-23 17:43:51.708 append rcv station = 0 Len = 8760 byte realdata"
"2017-03-23 17:43:51.709 append rcv station = 0 Len = 5840 byte realdata"
"2017-03-23 17:43:51.710 append rcv station = 0 Len = 1460 byte realdata"
"2017-03-23 17:43:51.719 append rcv station = 0 Len = 1460 byte realdata"
"2017-03-23 17:43:51.719 append rcv station = 0 Len = 472 byte realdata"
"2017-03-23 17:43:51.721 parse station = 0 12000 data shengyu = 0"
"2017-03-23 17:43:51.721 parse station = 1 12000 data shengyu = 0"
"2017-03-23 17:43:52.633 append rcv station = 1 Len = 1460 byte realdata"
"2017-03-23 17:43:52.641 append rcv station = 1 Len = 16384 byte realdata"
"2017-03-23 17:43:52.641 append rcv station = 1 Len = 11356 byte realdata"
"2017-03-23 17:43:52.642 append rcv station = 1 Len = 5840 byte realdata"
"2017-03-23 17:43:52.643 append rcv station = 1 Len = 2920 byte realdata"
"2017-03-23 17:43:52.648 append rcv station = 1 Len = 8192 byte realdata"
"2017-03-23 17:43:52.648 append rcv station = 1 Len = 7868 byte realdata"
"2017-03-23 17:43:52.650 append rcv station = 1 Len = 2920 byte realdata"
"2017-03-23 17:43:52.653 append rcv station = 1 Len = 2920 byte realdata"
"2017-03-23 17:43:52.653 append rcv station = 1 Len = 1460 byte realdata"
"2017-03-23 17:43:52.656 append rcv station = 1 Len = 8192 byte realdata"
"2017-03-23 17:43:52.656 append rcv station = 1 Len = 2500 byte realdata"
"2017-03-23 17:43:52.730 parse station = 1 12000 data shengyu = 0"
"2017-03-23 17:43:52.927 append rcv station = 0 Len = 2920 byte realdata"
"2017-03-23 17:43:52.927 append rcv station = 0 Len = 1460 byte realdata"
"2017-03-23 17:43:52.928 append rcv station = 0 Len = 7300 byte realdata"
"2017-03-23 17:43:52.928 append rcv station = 0 Len = 4380 byte realdata"
"2017-03-23 17:43:52.935 append rcv station = 0 Len = 11680 byte realdata"
"2017-03-23 17:43:52.935 append rcv station = 0 Len = 23360 byte realdata"
"2017-03-23 17:43:52.936 append rcv station = 0 Len = 4380 byte realdata"
"2017-03-23 17:43:52.936 append rcv station = 0 Len = 4380 byte realdata"
"2017-03-23 17:43:52.937 append rcv station = 0 Len = 5676 byte realdata"
"2017-03-23 17:43:52.938 append rcv station = 0 Len = 2920 byte realdata"
"2017-03-23 17:43:52.938 append rcv station = 0 Len = 3556 byte realdata"
"2017-03-23 17:43:53.242 parse station = 0 12000 data shengyu = 0"

```

- 分析：
- 1、传输的总数据点 12000*2
 - 2、发送端整个数据的准备时间大概需要 1s
 - 3、数据传输过程耗时大概在 50ms 以内
 - 4、数据解析的频率大概需要 1s
 - 5、整个数据发送到接收解析耗时在 1.5s
 - 6、2 个站暂时对性能影响不大

(三)

主服务器端：负责数据接收解析

处理器: Intel(R) Celeron(R) CPU 1000M @ 1.80GHz 1.80 GHz
安装内存(RAM): 4.00 GB (2.36 GB 可用)
系统类型: 32 位操作系统

单站：负责数据上送（2 台）

- 1、

制造商: 清华同方
型号: 同方系列微机
处理器: Intel(R) Core(TM) i5-6400 CPU @ 2.70GHz 2.71 GHz
已安装的内存(RAM): 4.00 GB
系统类型: 64 位操作系统, 基于 x64 的处理器

处理器: Intel(R) Core(TM) i3-5005U CPU @ 2.00GHz 2.00 GHz
安装内存(RAM): 4.00 GB (3.74 GB 可用)
系统类型: 64 位操作系统
- 2、

处理器: Intel(R) Core(TM) i3-4005U CPU @ 1.70GHz 1.70 GHz
安装内存(RAM): 4.00 GB (2.51 GB 可用)
系统类型: 32 位操作系统
- 3、

连接方式：无线

```

"2017-03-23 17:51:44.343 append recv station = 0 Len = 8436 byte realdata"
"2017-03-23 17:51:44.347 append recv station = 0 Len = 8760 byte realdata"
"2017-03-23 17:51:44.347 append recv station = 0 Len = 16060 byte realdata"
"2017-03-23 17:51:44.374 append recv station = 0 Len = 5840 byte realdata"
"2017-03-23 17:51:44.374 append recv station = 0 Len = 1460 byte realdata"
"2017-03-23 17:51:44.374 append recv station = 0 Len = 1460 byte realdata"
"2017-03-23 17:51:44.376 append recv station = 0 Len = 2920 byte realdata"
"2017-03-23 17:51:44.377 append recv station = 0 Len = 2920 byte realdata"
"2017-03-23 17:51:44.377 append recv station = 0 Len = 7772 byte realdata"
"2017-03-23 17:51:44.500 append recv station = 1 Len = 1460 byte realdata"
"2017-03-23 17:51:44.504 append recv station = 1 Len = 14600 byte realdata"
"2017-03-23 17:51:44.505 append recv station = 1 Len = 15072 byte realdata"
"2017-03-23 17:51:44.521 parse station = 0 12000 data shengyu = 0"
"2017-03-23 17:51:44.521 parse station = 1 12000 data shengyu = 0"
"2017-03-23 17:51:45.413 append recv station = 2 Len = 1460 byte realdata"
"2017-03-23 17:51:45.425 append recv station = 2 Len = 8192 byte realdata"
"2017-03-23 17:51:45.426 append recv station = 2 Len = 7868 byte realdata"
"2017-03-23 17:51:45.433 append recv station = 2 Len = 8192 byte realdata"
"2017-03-23 17:51:45.434 append recv station = 2 Len = 16384 byte realdata"
"2017-03-23 17:51:45.434 append recv station = 2 Len = 14844 byte realdata"
"2017-03-23 17:51:45.437 append recv station = 2 Len = 8192 byte realdata"
"2017-03-23 17:51:45.437 append recv station = 2 Len = 6880 byte realdata"
"2017-03-23 17:51:45.488 append recv station = 0 Len = 2920 byte realdata"
"2017-03-23 17:51:45.491 append recv station = 0 Len = 14600 byte realdata"
"2017-03-23 17:51:45.493 append recv station = 0 Len = 16384 byte realdata"
"2017-03-23 17:51:45.493 append recv station = 0 Len = 6976 byte realdata"
"2017-03-23 17:51:45.498 append recv station = 0 Len = 16384 byte realdata"
"2017-03-23 17:51:45.498 append recv station = 0 Len = 9732 byte realdata"
"2017-03-23 17:51:45.499 append recv station = 0 Len = 4380 byte realdata"
"2017-03-23 17:51:45.500 append recv station = 0 Len = 636 byte realdata"
"2017-03-23 17:51:45.535 parse station = 0 12000 data shengyu = 0"
"2017-03-23 17:51:45.535 parse station = 2 12000 data shengyu = 0"
"2017-03-23 17:51:45.561 append recv station = 1 Len = 1460 byte realdata"
"2017-03-23 17:51:45.570 append recv station = 1 Len = 14600 byte realdata"
"2017-03-23 17:51:45.570 append recv station = 1 Len = 2920 byte realdata"
"2017-03-23 17:51:45.571 append recv station = 1 Len = 1460 byte realdata"
"2017-03-23 17:51:45.575 append recv station = 1 Len = 5840 byte realdata"
"2017-03-23 17:51:45.577 append recv station = 1 Len = 4380 byte realdata"
"2017-03-23 17:51:45.578 append recv station = 1 Len = 5840 byte realdata"
"2017-03-23 17:51:45.588 append recv station = 1 Len = 16384 byte realdata"
"2017-03-23 17:51:45.588 append recv station = 1 Len = 19128 byte realdata"
"2017-03-23 17:51:46.037 parse station = 1 12000 data shengyu = 0"

```

- 分析：
- 1、传输的总数据点 12000*3
 - 2、发送端整个数据的准备时间大概需要 1s
 - 3、数据传输过程耗时大概在 50ms 以内
 - 4、数据解析的频率大概需要 1s
 - 5、整个数据发送到接收解析耗时在 1.5s
 - 6、3 个站暂时对性能影响不大

(四)

主服务器端：负责数据接收解析

处理器: Intel(R) Celeron(R) CPU 1000M @ 1.80GHz 1.80 GHz
安装内存(RAM): 4.00 GB (2.36 GB 可用)
系统类型: 32 位操作系统

单站：负责数据上送（1台）

制造商: 清华同方
型号: 同方系列微机
处理器: Intel(R) Core(TM) i5-6400 CPU @ 2.70GHz 2.71 GHz
已安装的内存(RAM): 4.00 GB
系统类型: 64 位操作系统，基于 x64 的处理器

连接方式：有线

```
E:\source\gaoqiang\webserver\CommServer\STNetEngine-TL.exe
"2017-03-24 09:43:02.716 parse station = 0 12000 data shengyu = 0"
"2017-03-24 09:43:03.903 append recv station = 0 Len = 2920 byte realdata"
"2017-03-24 09:43:03.905 append recv station = 0 Len = 69092 byte realdata"
"2017-03-24 09:43:04.241 parse station = 0 12000 data shengyu = 0"
"2017-03-24 09:43:05.145 append recv station = 0 Len = 4380 byte realdata"
"2017-03-24 09:43:05.146 append recv station = 0 Len = 67632 byte realdata"
"2017-03-24 09:43:05.254 parse station = 0 12000 data shengyu = 0"
"2017-03-24 09:43:06.381 append recv station = 0 Len = 2920 byte realdata"
"2017-03-24 09:43:06.382 append recv station = 0 Len = 69092 byte realdata"
"2017-03-24 09:43:06.774 parse station = 0 12000 data shengyu = 0"
"2017-03-24 09:43:07.622 append recv station = 0 Len = 2920 byte realdata"
"2017-03-24 09:43:07.623 append recv station = 0 Len = 69092 byte realdata"
"2017-03-24 09:43:07.783 parse station = 0 12000 data shengyu = 0"
"2017-03-24 09:43:08.863 append recv station = 0 Len = 16384 byte realdata"
"2017-03-24 09:43:08.864 append recv station = 0 Len = 55628 byte realdata"
"2017-03-24 09:43:09.310 parse station = 0 12000 data shengyu = 0"
"2017-03-24 09:43:10.103 append recv station = 0 Len = 16384 byte realdata"
"2017-03-24 09:43:10.103 append recv station = 0 Len = 55628 byte realdata"
"2017-03-24 09:43:10.323 parse station = 0 12000 data shengyu = 0"
"2017-03-24 09:43:11.344 append recv station = 0 Len = 4380 byte realdata"
"2017-03-24 09:43:11.345 append recv station = 0 Len = 16384 byte realdata"
"2017-03-24 09:43:11.347 append recv station = 0 Len = 51248 byte realdata"
"2017-03-24 09:43:11.840 parse station = 0 12000 data shengyu = 0"
```

分析：1、传输的总数据点 12000

2、发送端整个数据的准备时间大概需要 1s

3、数据传输过程耗时大概在 2ms 以内，传输的速度有明显提升

4、数据解析的频率大概需要 1s

5、整个数据发送到接收解析耗时在 1.5s

(五)

主服务器端：负责数据接收解析：

制造商： 清华同方
型号： 同方系列微机
处理器： Intel(R) Core(TM) i5-6400 CPU @ 2.70GHz 2.71 GHz
已安装的内存(RAM)： 4.00 GB
系统类型： 64 位操作系统，基于 x64 的处理器

单站：负责数据上送（1台）

处理器： Intel(R) Celeron(R) CPU 1000M @ 1.80GHz 1.80 GHz
安装内存(RAM)： 4.00 GB (2.36 GB 可用)
系统类型： 32 位操作系统

1、

连接方式：有线

```
C:\Users\sitc-qtouch\Desktop\CommServer\STNetEngine-TL.exe  
"2017-03-24 10:11:18.754 append recv station = 0 Len = 15072 byte realdata"  
"2017-03-24 10:11:18.817 parse station = 0 12000 data shengyu = 0"  
"2017-03-24 10:11:20.598 append recv station = 0 Len = 54020 byte realdata"  
"2017-03-24 10:11:20.598 append recv station = 0 Len = 17992 byte realdata"  
"2017-03-24 10:11:20.817 parse station = 0 12000 data shengyu = 0"  
"2017-03-24 10:11:22.286 append recv station = 0 Len = 24820 byte realdata"  
"2017-03-24 10:11:22.286 append recv station = 0 Len = 29200 byte realdata"  
"2017-03-24 10:11:22.286 append recv station = 0 Len = 17992 byte realdata"  
"2017-03-24 10:11:22.317 parse station = 0 12000 data shengyu = 0"  
"2017-03-24 10:11:23.942 append recv station = 0 Len = 56940 byte realdata"  
"2017-03-24 10:11:23.942 append recv station = 0 Len = 15072 byte realdata"  
"2017-03-24 10:11:24.317 parse station = 0 12000 data shengyu = 0"  
"2017-03-24 10:11:25.677 append recv station = 0 Len = 52560 byte realdata"  
"2017-03-24 10:11:25.677 append recv station = 0 Len = 19452 byte realdata"  
"2017-03-24 10:11:25.817 parse station = 0 12000 data shengyu = 0"  
"2017-03-24 10:11:27.349 append recv station = 0 Len = 55480 byte realdata"  
"2017-03-24 10:11:27.349 append recv station = 0 Len = 16532 byte realdata"  
"2017-03-24 10:11:27.817 parse station = 0 12000 data shengyu = 0"  
"2017-03-24 10:11:29.036 append recv station = 0 Len = 14600 byte realdata"  
"2017-03-24 10:11:29.036 append recv station = 0 Len = 23360 byte realdata"  
"2017-03-24 10:11:29.036 append recv station = 0 Len = 34052 byte realdata"  
"2017-03-24 10:11:29.318 parse station = 0 12000 data shengyu = 0"  
"2017-03-24 10:11:30.787 append recv station = 0 Len = 14600 byte realdata"  
"2017-03-24 10:11:30.787 append recv station = 0 Len = 57412 byte realdata"  
"2017-03-24 10:11:30.818 parse station = 0 12000 data shengyu = 0"  
"2017-03-24 10:11:32.412 append recv station = 0 Len = 55480 byte realdata"  
"2017-03-24 10:11:32.412 append recv station = 0 Len = 16532 byte realdata"  
"2017-03-24 10:11:32.818 parse station = 0 12000 data shengyu = 0"  
搜狗拼音输入法 全：
```

分析：主服务器换一台性能稍好的电脑，发送端电脑性能稍差

1、传输的总数据点 12000

2、发送端整个数据的准备时间大概需要 1.5s

3、数据传输过程耗时大概在 2ms 以内，传输的速度有明显提升

4、数据解析的频率大概需要 1s

5、整个数据发送到接收解析耗时在 1.5s

主服务器端：负责数据接收解析：

制造商：清华同方
型号：同方系列微机
处理器：Intel(R) Core(TM) i5-6400 CPU @ 2.70GHz 2.71 GHz
已安装的内存(RAM)：4.00 GB
系统类型：64 位操作系统，基于 x64 的处理器

单站：负责数据上送（3 台）

1、
处理器：Intel(R) Celeron(R) CPU 1000M @ 1.80GHz 1.80 GHz
安装内存(RAM)：4.00 GB (2.36 GB 可用)
系统类型：32 位操作系统

2、
处理器：Intel(R) Core(TM) i3-5005U CPU @ 2.00GHz 2.00 GHz
安装内存(RAM)：4.00 GB (3.74 GB 可用)
系统类型：64 位操作系统

3、
处理器：Intel(R) Core(TM) i3-4005U CPU @ 1.70GHz 1.70 GHz
安装内存(RAM)：4.00 GB (2.51 GB 可用)
系统类型：32 位操作系统

```
C:\Users\sitc-qtouch\Desktop\CommServer\STNetEngine-TL.exe
"2017-03-24 10:31:44.509 append rcv station = 1 Len = 8760 byte realdata"
"2017-03-24 10:31:44.509 append rcv station = 1 Len = 10220 byte realdata"
"2017-03-24 10:31:44.509 append rcv station = 1 Len = 10220 byte realdata"
"2017-03-24 10:31:44.509 append rcv station = 1 Len = 8760 byte realdata"
"2017-03-24 10:31:44.509 append rcv station = 1 Len = 9232 byte realdata"
"2017-03-24 10:31:44.525 parse station = 0 12000 data shengyu = 0"
"2017-03-24 10:31:44.525 parse station = 1 12000 data shengyu = 0"
"2017-03-24 10:31:45.431 append rcv station = 2 Len = 5840 byte realdata"
"2017-03-24 10:31:45.431 append rcv station = 2 Len = 18980 byte realdata"
"2017-03-24 10:31:45.431 append rcv station = 2 Len = 2920 byte realdata"
"2017-03-24 10:31:45.446 append rcv station = 2 Len = 1460 byte realdata"
"2017-03-24 10:31:45.446 append rcv station = 2 Len = 8760 byte realdata"
"2017-03-24 10:31:45.446 append rcv station = 2 Len = 10220 byte realdata"
"2017-03-24 10:31:45.446 append rcv station = 2 Len = 10220 byte realdata"
"2017-03-24 10:31:45.446 append rcv station = 2 Len = 8596 byte realdata"
"2017-03-24 10:31:45.446 append rcv station = 2 Len = 2920 byte realdata"
"2017-03-24 10:31:45.446 append rcv station = 2 Len = 1460 byte realdata"
"2017-03-24 10:31:45.446 append rcv station = 2 Len = 636 byte realdata"
"2017-03-24 10:31:45.525 parse station = 2 12000 data shengyu = 0"
"2017-03-24 10:31:45.853 append rcv station = 0 Len = 1460 byte realdata"
"2017-03-24 10:31:45.853 append rcv station = 0 Len = 8760 byte realdata"
"2017-03-24 10:31:45.853 append rcv station = 0 Len = 10220 byte realdata"
"2017-03-24 10:31:45.853 append rcv station = 0 Len = 8760 byte realdata"
"2017-03-24 10:31:45.853 append rcv station = 0 Len = 10220 byte realdata"
"2017-03-24 10:31:45.853 append rcv station = 0 Len = 10220 byte realdata"
"2017-03-24 10:31:45.853 append rcv station = 0 Len = 8760 byte realdata"
"2017-03-24 10:31:45.853 append rcv station = 0 Len = 10056 byte realdata"
"2017-03-24 10:31:45.853 append rcv station = 0 Len = 3556 byte realdata"
"2017-03-24 10:31:45.915 append rcv station = 1 Len = 5840 byte realdata"
"2017-03-24 10:31:45.915 append rcv station = 1 Len = 10220 byte realdata"
"2017-03-24 10:31:45.931 append rcv station = 1 Len = 5840 byte realdata"
"2017-03-24 10:31:45.931 append rcv station = 1 Len = 10220 byte realdata"
"2017-03-24 10:31:45.946 append rcv station = 1 Len = 8760 byte realdata"
"2017-03-24 10:31:45.962 append rcv station = 1 Len = 5840 byte realdata"
"2017-03-24 10:31:45.962 append rcv station = 1 Len = 7300 byte realdata"
"2017-03-24 10:31:45.978 append rcv station = 1 Len = 2920 byte realdata"
"2017-03-24 10:31:45.993 append rcv station = 1 Len = 1460 byte realdata"
"2017-03-24 10:31:45.993 append rcv station = 1 Len = 2920 byte realdata"
"2017-03-24 10:31:45.993 append rcv station = 1 Len = 1460 byte realdata"
"2017-03-24 10:31:45.993 append rcv station = 1 Len = 1460 byte realdata"
"2017-03-24 10:31:45.993 append rcv station = 1 Len = 1460 byte realdata"
"2017-03-24 10:31:46.025 parse station = 0 12000 data shengyu = 0"
"2017-03-24 10:31:46.025 parse station = 1 12000 data shengyu = 0"
```

分析：主服务器换一台性能稍好的电脑，发送端电脑性能稍差

- 1、传输的总数据点 12000*3
- 2、发送端整个数据的准备时间大概需要 1.5s
- 3、数据传输过程耗时大概在 80ms 以内
- 4、数据解析的频率大概需要 1s
- 5、整个数据发送到接收解析耗时在 1.5s

目前测试，性能最好一台电脑为 intel core i5 四核，内存 4G 的作为服务器，客户端主机性能一般，处理速度有限。

实验测试最高的并发是 10 个，四台实际主机客户端电脑，6 台模拟的客户端，测试性能与单台测试性能差不多，链路传输的性能都比较高。

主耗时的部分，客户端数据准备工作比较耗时，此部分是按照全数据准备发送，按照抢占 CPU 资源的方式处理，比较依赖电脑的性能。

后续效率优化的方案，硬件：选配数据处理能力强，高性能的主机；软件：可从数据变化或者波动范围上传来减少逻辑判断从而提高数据准备的时间。