



INP Lab08

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Protocol Design





Protocol Design

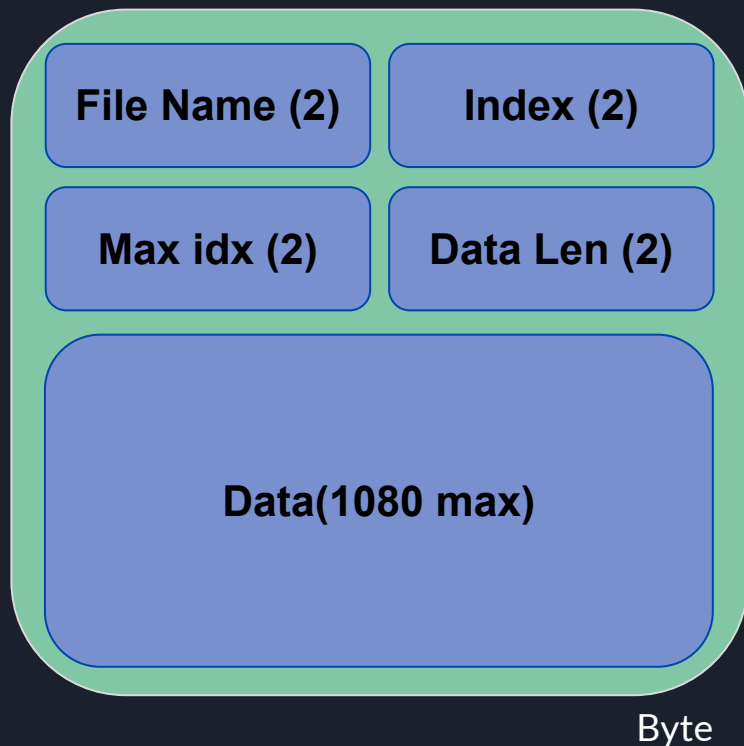
- Data Packet
 - client -> server
- Ack Packet
 - server -> client
 - 3 times



Protocol Design

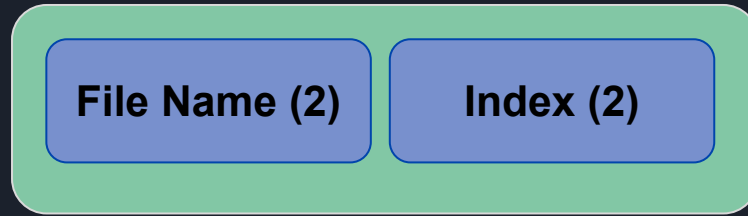
- File
 - Split the data to 1080 bytes per packet
 - Max index

Protocol Design – Data Packet



- File Name: (int) 0000 ~ 1000
- Index: (int) 00-32
- Max idx: (int) 00-32
- Data Len: (int) Data length
- Data: the data

Protocol Design – ACK Packet



Byte

- File Name: (int) 0000-1000
- Index: (int) 00-32



setsockopt

```
int recv_siz = RECV_SIZ;  
setsockopt(sock, SOL_SOCKET, SO_RCVBUF, &recv_siz, sizeof(recv_siz));
```

- RECV Buffer size
 - 10000: 41s
 - 5000: 44s
 - 1000: 47s

Result

```
Submit time: 2022-12-14 19:40:17.901802

[*] Switching to interactive mode
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 1500 qdisc noqueue state UNKNOWN mode DEFAULT group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
qdisc netem acf6: dev lo root refcnt 2 limit 1000 delay 100ms 50ms loss 40% corrupt 10% rate 10Mbit
qdisc noqueue 0: dev eth0 root refcnt 2
** checking files ...
  [0] ..... [10] ..... [20] ..... [30] ..... [40] ..... [50] ..... [60] .....
    ..... [70] ..... [80] ..... [90] ..... [100] ..... [110] ..... [120] .....
    ..... [130] ..... [140] ..... [150] ..... [160] ..... [170] ..... [180] .....
    ..... [190] ..... [200] ..... [210] ..... [220] ..... [230] ..... [240] .....
    ..... [250] ..... [260] ..... [270] ..... [280] ..... [290] ..... [300] .....
    ..... [310] ..... [320] ..... [330] ..... [340] ..... [350] ..... [360] .....
    ..... [370] ..... [380] ..... [390] ..... [400] ..... [410] ..... [420] .....
    ..... [430] ..... [440] ..... [450] ..... [460] ..... [470] ..... [480] .....
    ..... [490] ..... [500] ..... [510] ..... [520] ..... [530] ..... [540] .....
    ..... [550] ..... [560] ..... [570] ..... [580] ..... [590] ..... [600] .....
    ..... [610] ..... [620] ..... [630] ..... [640] ..... [650] ..... [660] .....
    ..... [670] ..... [680] ..... [690] ..... [700] ..... [710] ..... [720] .....
    ..... [730] ..... [740] ..... [750] ..... [760] ..... [770] ..... [780] .....
    ..... [790] ..... [800] ..... [810] ..... [820] ..... [830] ..... [840] .....
    ..... [850] ..... [860] ..... [870] ..... [880] ..... [890] ..... [900] .....
    ..... [910] ..... [920] ..... [930] ..... [940] ..... [950] ..... [960] .....
    ..... [970] ..... [980] ..... [990] .....
** size incorrect = 0 , corrupted files = 0
** submitting to scoreboard ...
ok
** client runs for 39.193853 second(s)
** success rate = 1.000000 ; files = 1000 / 1000
[*] Got EOF while reading in interactive
$
[*] Interrupted
[*] Closed connection to inp111.zoolab.org port 10009
```


Result

11

Banana

2022-12-14 18:23:15

— ● Corrupted: 0 ● Badsize: 0 ● Success: 1000 | Elapsed: 39.175681s

100.0%

Time: 12/14 20:04