

README
MACHINE PROBLEM 3
TRIVIAL FILE TRANSFER PROTOCOL (TFTP)

TEAM 10

Team Members:

- 1) Boyu Li
- 2) Kavya Santha Kumar

Individual Contributions:

- 1) Kavya is responsible for implementing the send packets function, timeout of the server
- 2) Boyu is responsible for implementing the request and acknowledge function of the client

Architecture:

This program assignment consists of tftp_server.c

Server:

The server binds the input <ip_address> and <port_number> to listen to new client requests. When the server receives a new client request, the random function generator will create a new socket. The file will be sent in 512-bytes blocks to clients. The server sequentially sends each 512-bytes blocks of packets and waits for acknowledgements from the client. After all packets of the file is sent to the client, the transmission is ended.

Usage:

1. in commandline: make (compile tftp_server.c)
2. run the server first: ./tftpServer <ip_address> <port_no.>
you should see:
--waiting to connect....
3. then run the client
tftp
tftp> connect <ip_address> <port_no.>
4. now the Trivial File Transfer Protocol (TFTP) is established

Testcases:

1. Testcase 1: transferring a 2048byte binary file
2. Testcase 2: transferring a 2047byte binary file(not a multiple of 512)
3. Testcase 3: transferring a netascii file
4. Testcase 4: transferring a 34Megabyte netascii file
5. Testcase 5: transferring a invalid file
6. Testcase 6: multi-clients ask transferring different file
7. Testcase 7: sudden disconnection of client and server shows 10 timeout

The result is in the report.

