Computer Networks Midterm Project
2018. 10
Due： 12/04/2018

Please write a network application, LFTP, to support large file transfer between two computers in the Internet.

1. A student can finish the project by himself or herself. Two students may form a group to work on the project too. If two students work together, the tasks to be finished should be assigned to each one by almost 50%;

2. The technical requirements are:

(1) Please choose one of following programing languages: C, C++， Java, Python;

(2) LFTP should use a client-server service model;

(3) LFTP must include a client side program and a server side program; Client side program can not only send a large file to the server but also download a file from the server.

Sending file should use the following format：

LFTP lsend myserver mylargefile

Getting file should use the following format

LFTP lget myserver mylargefile

The parameter myserver can be a url address or an IP address.

(4) LFTP should use UDP as the transport layer protocol.

(5) LFTP must realize 100% reliability as TCP;

(6) LFTP must implement flow control function similar as TCP;

(7) LFTP must implement congestion control function similar as TCP;

(8) LFTP server side must be able to support multiple clients at the same time;

(9) LFTP should provide meaningful debug information when programs are executed.

When you finish your projects you must turn in the following:

1. Project design and testing documents;

2. Source code of the project.　(You may use github for your development);

3. Program execution screen shots.