

ICT-6544: Distributed Systems
Term Project
10/06/2017
Deadline: 30/07/2017

Title: Distributed File Decryptor

Description: The system will work as follows:

- Develop a client program and a server program
- The server will read a sample text (T), and corresponding MD5 of the text (HT) .
Example, T = "HI", HT = "XYBGDX"
- Assume that max key length will be 8 and key may contain numbers (0-9)
- When a client sends a REQ packet, the server will reply with T. HT and a range of 1,000,000 decryption k to test, e.g., 00000000 – 00999999.
- The server will send different range to different clients
- The client will generate a random key using the range, generate MD5 hash, HT* with the key from T. Then, it will compare HT* with HT. If matches, the key is found and it will send a SUCCESS packet to the server with the recovered key.
- If the client could not find the key in its range, it will send a RETRY packet to the server and the server will send a new range to the client
- When server retrieves the key from a client, it will print the key in an output file.
- Run your program with 1, 2, 4, and 8 clients and report the time required to get the file key.
 - Time = server receives success – time of first request from the first client

Development Platform: UNIX C/C++ or Java