Diagram 5 indicate that, there can be several users from all over the world using a single server on the cloud, what differentiate their data from one another is their identity, they can access their data using their logon credentials of username and password.

Diagram in page 15 shows the 2 mechanisms of getting data from the cloud and saving data to the cloud. There are direct and indirect communication between user and cloud server.

For direct communication, data are accessed and communicated to with the server without any third party device intervention. It means they are accessed directly probably with simple authentication of username and password.

For indirect communication, data are accessed and communicated with the server after it has been duely verified by a channel. For this project, we used mobile telecommunication to bridge the line of direct access. That is where the OTP comes in. in order to prevent unauthorized access, even if the attacker is able to get ahold of logon credentials, he will still need the OTP that will be sent to user’s phone on each login. Without the OTP, he will be stuck at the midway and will have no choice than to opt out.

Flowchart in page 20 shows the user login activities. It shows that if it is existing user, he should enter his user name and password, if it is correct, access to the system should be granted else it should opt out. If it is new user, the person should register with the system administrator.

The screenshot of the homepage, shows 3links,i. for new user to register, ii. For existing user to access cloud and iii. For system administrator to go to the admin panel.

HOW THE SYSTEM WORKS

First admin will register the new user by entering his surname, othernames and phone number. The system will immediately verify if the phone number is valid and then generate and send the access code to user’s phone as text message.

Secondly, the user will use the access code received as text message to logon to the system and then complete registration.

During the registration process, the user will be prompted to entre desired username and password to access cloud, and those will be attached to his account.

Thirdly, the user will access cloud by entering the desired username and password he or she created, then a One time password will be sent to user’s phone to verify that he is truly the owner of the account. After that, the system will grant user access to his data on the cloud.

All these processes are shown in the screenshot.