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Private Storage Cloud for Facilitate the Functions of Organizations

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Abstract: Cloud storage or cloud computing is a set of technologies and equipment services that are capable of giving remote storage service, within minutes, and the ability to retrieve them easily [1]. Since the paper storage of files faces problems of damage and loss of documents in addition to time and effort in case some files are requested and sent to another section. To solve this problem, we suggested creating a private cloud for any organization or department.
The work included creating a storage cloud that includes file archiving and the possibility of facilitating interaction between college staff in terms of exchanging files and inquiring about them without trouble and taking a long period of time for research and adding the nature of privacy to inform who is not concerned with this or without college staff and this is done by making accounts for college cadres so that they can access the cloud, starting from the Deanship, associates, scientific departments and administrative departments, and each department has its own files that cannot be accessed.

Keyword: Cloud Computing, a Storage Cloud, Storage Service.

1. INTRODUCTION

The most accurate description of cloud storage is that it consists of enormous computers with a lot of storage space on which users upload their information to be kept and businesses develop applications under the umbrella of cloud computing [2].
There are two different kinds of cloud storage services; one is available for free, while the other requires payment beforehand, either monthly or yearly. Keep in mind that if you share your account information with someone else, only you will be able to read all of your company-filed documents [3]. Because the businesses that offer these services give you your own storage space that only you can access when you register with them, it becomes like your computer [4].

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1.1 Cloud Storage Advantages [5]:

1. Syncing files allows you to access your uploaded or modified files from any computer, tablet, or mobile device you own.
2. 2-File Sharing: As you are probably aware, emails have a 25MB limit, which makes it difficult for individuals to transfer huge files. To get around this, you may upload large files to cloud storage services and then transmit the URL to those files via email.
3. Make a backup copy of your data and files [6].
4. 4-Businesses do not need to purchase new gear, such as a new hard drive, and may thus scale back on the number of their IT department.
5. 5-Because the information is not saved on your hard drive but rather on the servers of the firm offering the service, cloud computing enables you to access all of your apps and services from anywhere and at any time over the Internet [7].

1.2 Disadvantages of Cloud Storage 8]:

- Internet access is required for cloud apps since interruptions to the internet will make it harder for you to complete your task.
- Security worries: Some people worry that all of their data and files will be stored by businesses that offer cloud services. The hacker could be able to get the users' information if the service is the target of a successful infiltration. The dependability and secrecy of the cloud provider are your only assurances [9].
- The majority of cloud apps still fall short of the quality of conventional desktop programs. For instance, web-based image editing tools still fall short of Photoshop in quality [10].

Survey: **Current Use of a Storage Cloud Services**

In comparison to 73% of professionals, 85% of students presently utilize at least one cloud service.

As demonstrated in fig. 1, the majority of them utilize Google Drive (17%) and Dropbox (79%; employees: 65%). The majority of participants became aware of cloud services as a result of recommendations from people in their immediate social circle, such as friends, family, or coworkers (students: 81%; employees: 76%).

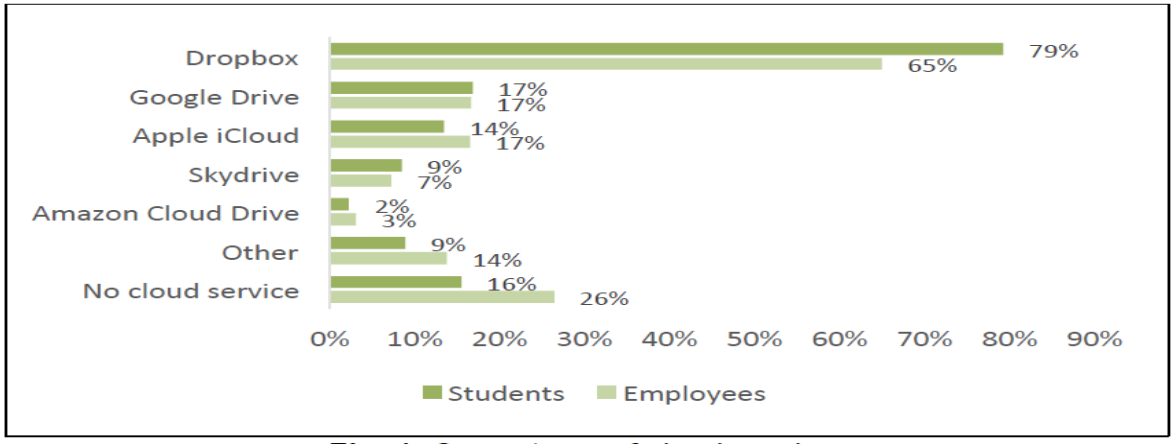

Fig (1) Current use of a storage cloud services

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Currently, 78% of students and 83% of project participants use the cloud for educational materials. Furthermore, 54% of private photos and 58% of other personal data are stored in the cloud. Cloud services are mostly used by employees for work-related content (78%), personal photos (52%) and other private data (62%). The bulk of students (80%) report using 1, 1 to 4, 9 GB of study-related data. Others (21%) report a volume of between 5 and 10 GB. Only 3,3% and 5%, respectively, of a volume between 21 and 30 GB are used. By comparison, employees specify a much larger amount of data. More than 30 GB (20%) is the storage amount that is mentioned here the most frequently. Another 19% claim a volume between 5 and 9,9 GB, while 17% claim a range between 1,1 and 4,9 GB [11].

Proposed Work:

Tools and Software Used

In order to create a cloud, the cloud must be provided as hardware, so Mycloud device is used as a reliable personal central storage system with automatic backup feature and it is connected to your own home network [12]. You can share anything you want to share, from anywhere connected to the Internet, show Fig (2).



Fig (2): My cloud device

It collects all your photos, files and documents centrally, organize and back them up in one place you trust. Enjoy accessing and sharing all your favorite pictures and videos using your computer, tablet or smartphone from anywhere you are online.

Cloud-specific software, WDMyCloudwin application software for account creation, WDSmartWare Pro software for backup files and SSL security technology.

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Management The cloud

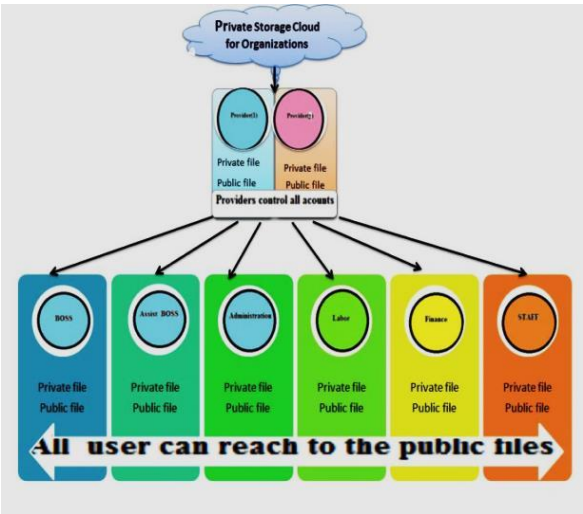

Fig (3): Diagram of proposed work

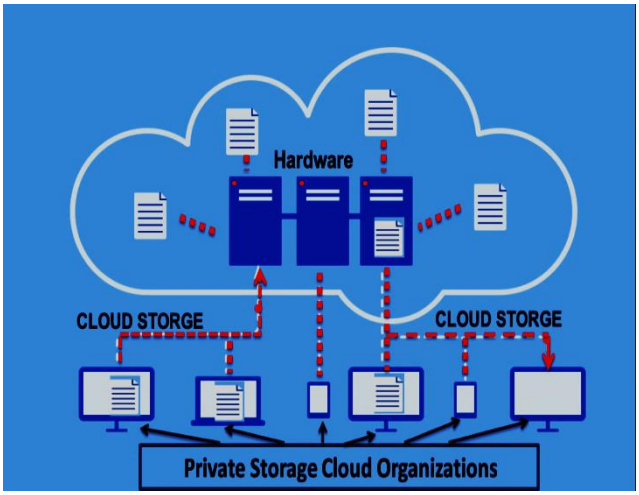

Fig (4): proposed work in practical view

Cloud Providers create accounts for organization and give customers control to access and manage files that belong to them. each account has two type of file private files, public files. Public file can be accessed to it from all staff, and download it while private file can be accessed only if owner of account and provider allow with that. Figure (3) and figure (4) show proposed work.

2. METHODOLOGY

To start with, the cloud should be configured as follows:
1- Set up a cloud device, show fig (5). 2- Preparing account steps, show fig (6).

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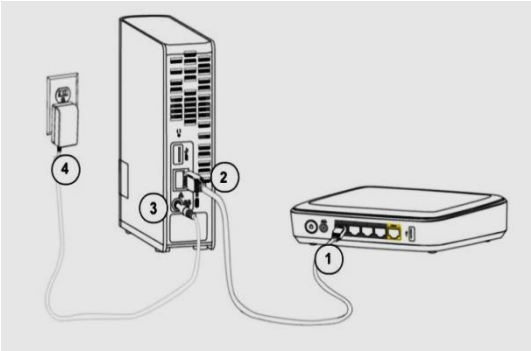

Fig (5) Setup device

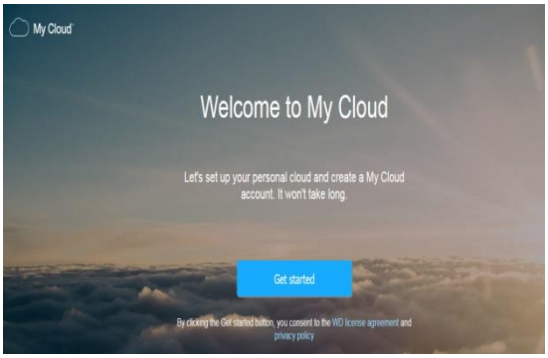

Fig (6) Site my cloud

3-Find the cloud , show fig(7).

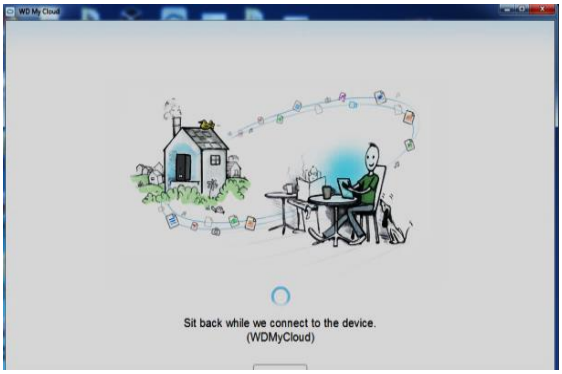

Fig (7) Find my cloud

4- Find IP and MAC, show fig(8).



Fig (8) Connect my cloud

5-Set up cloud access, show fig (9).

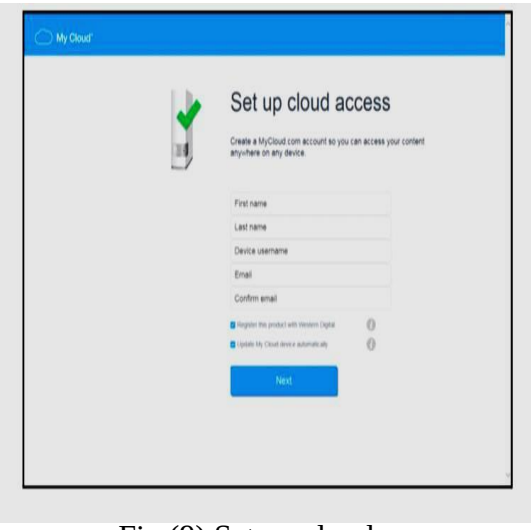

Fig (9) Set up cloud

6- Add the digital certificate, show fig (10).

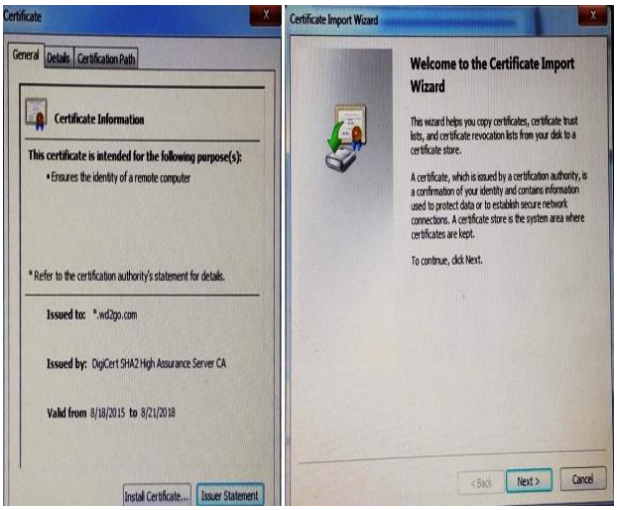

Fig (10) Add certificate

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7- Set up an account equipped with the cloud, show fig (11).

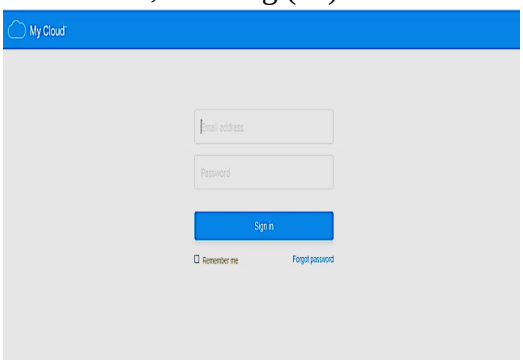

Fig (11) Setup Account

8- User account numbers interface, show fig (12)

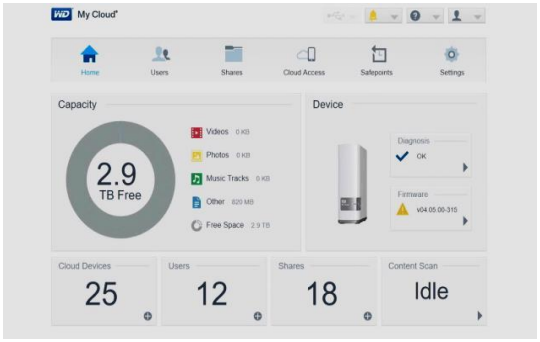

Fig (12) Cloud Config.

9- Add a user account, show fig (13).

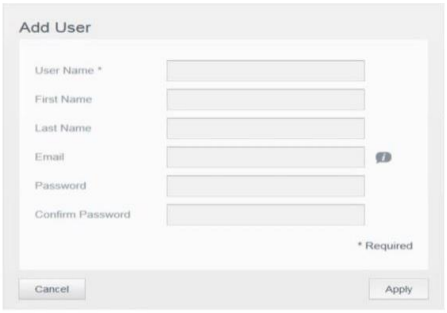

Fig (13) Add user

10- Show notifications, show fig (14).

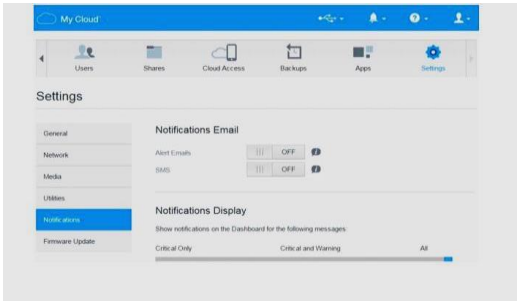

Fig (14) Notifications

11- An account contains two public and private files, show fig (15).



Fig (15) Location files

12- Backup, show fig (16).

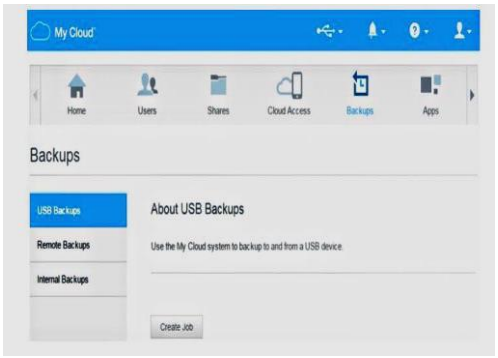

Fig (16) Backup

3. RESULTS

Initially, we will show how the application and sections appear if it is a desktop or mobile calculator After the accounts are prepared and distributed, they are tested in adding and

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deleting documents, but here we show how we share files, and make sure to see the file or delete it.

Test

1-How to log into an account in the cloud, show Fig (17).

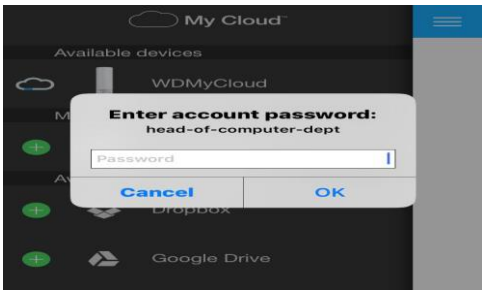

Fig (17) Enter password

2-The set of accounts on the mobile device, show Fig (18).



Fig (18) Mobile Accounts

3-College account numbers on desktop computer, show Fig (19).

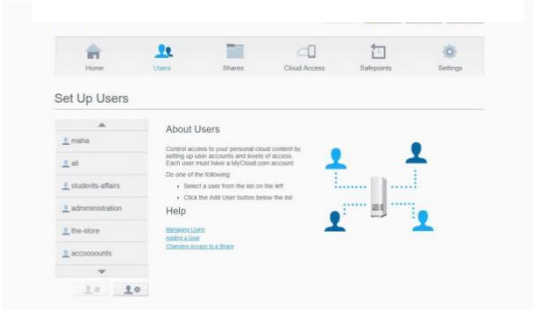

Fig (19) Desktop

4- Share files between college departments, show Fig(20).

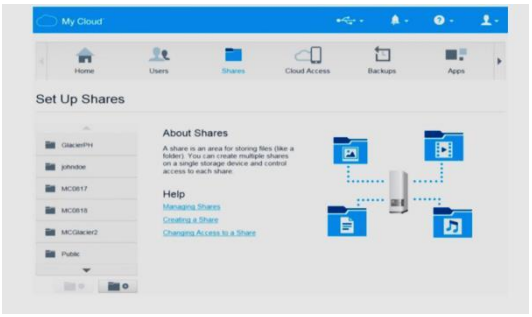

Fig (20) Cloud share

Activity

1-The process of seeing the shared file, show Fig (21).

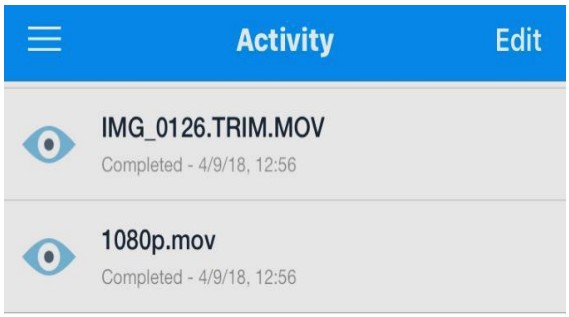

Fig (21) Seeing shared file

2- How to delete some wrong files, show Fig (22).

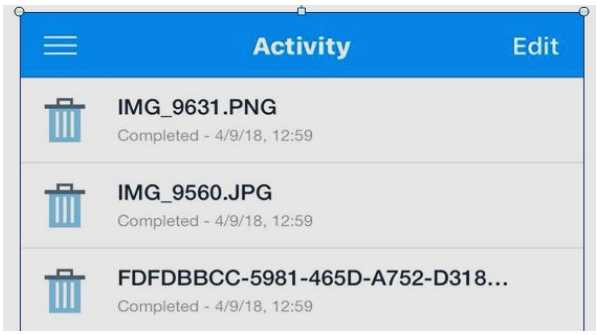

Fig (22) Seeing shared file

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4. CONCLUSIONS

1. Benefiting from the storage cloud in the success of the strategies of converting to the electronic management of university colleges.
2. The possibility of retrieval and update on the college cloud.
3. File sharing makes it easy to interact between employees and saves time and effort.
4. The ability to access the cloud from anywhere when the necessary need for a specific file.
5. The college itself is only authorized to view and update these files, ensuring speedy overrun errors. When there is a specific error in the data of a partition files.

Recommendations

1. Increase the storage space for the cloud to make an account for students 'inquiries and questions and give it a good storage space, and the account is general
2. Encrypt the route between the cloud and the client to obtain security and privacy and use another way to encrypt the cloud.
3. To benefit from the concept of the storage cloud in managing university and college files electronically by creating a special cloud for the university and giving accounts to university colleges.

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