

Customized Mechanism for Cloud Based Data Sharing Over Intranet – Study Based on Survey Conducted for Pakistani Business Industry

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Abstract – Open distributed storage gives access to the clients of an association to store and share their information. Since all the execution of administration is done by means of web, an association have absence of control over the information or the system, now the inquiry emerges here that how the association get guarantee the confirmation of the security of their information and that won't be gotten to by another person that are not authentic proprietor furthermore execution will be affected in the event that somebody got access.

Iterative procedure model offers separate structure for the improvement of use in which one can break an extensive application into little modules. In Iterative improvement, source code is planned and created and tried in reshaped cycles until it is in appropriate working structure then can be conveyed to clients. With every cycle new components can be included as well.

Keywords – Cloud Computing, Distributed Systems, Data Sharing, Intranet.

I. INTRODUCTION

Desktop Application for Cloud based secure data sharing in intranet (Sky Shield Plus) allows user to upload, download & share data (photos, audio, video, other format files) among other users and user groups. This Project also includes the feature of desktop synchronization. The web application is synchronized with the user's desktop at the time of running. The need of the project was realized when many of the public cloud storage applications on the internet are not relatively secure with respect to the important data e.g. which includes confidential or classified data etc. because data is stored on the public server that may get manipulate.

Hence, the solution is to implement personal cloud based secure data sharing which will be based on intranet. By implementing of private cloud storage which provides organization a safe. The Scope of the project is to facilitate organizations by providing a private cloud based secure data sharing application that let users to store their files in intranet. It allows user to share files from user computer to another computer as long as users are connected to the intranet. Deleted files are not automatically thrown away permanently. Sky Shield Plus will keep it in recycle bin before it will be gone forever and also maintain versions of the files and check the

change detection in text files (.txt format) as well. In addition to this, when user copy files from one folder to another, it will not require those files to be uploaded again. Thus, it will save users a lot of time from uploading contents. Another important feature is that the user's desktop is synchronized with the system. The user can check the files on the server from the folder on the desktop which automatically receive the data from the space allowed to the user in server. Other than that, at administrator and user section trend analysis helps the user to determine the consumption of space and usage of different file format's that are being uploaded and downloaded by user's which is represented by a graphical chart. Environment for storing data securely will remain within the organization.

Public cloud storage provides access to the users of an organization to store and share their data. Since all the execution of services is done via internet an organization have lack of control over the data or the network, now the question arises here that how the organization get ensure the assurance of the security of their data and that will not be accessed by someone else that are not legitimate owner and also performance will be effected if someone got access.

Sky Shield Plus is an intranet based application delivery model which provides cloud storage for users in all markets including financial, health care & government. The idea has been adapted from the security issues which were faced by different organizations. The need for this application was raised due to the insecurity of data ownership on public cloud for an organization to whom the data ownership is necessary. I am providing a system in which an organization can store their valuable data on private cloud. On the other hand application allows user to download, upload, and share its data within an organization between user's and user groups. Another important feature of the application is that the user's desktop is synchronized with the system. The user can check the files on the server from the desktop folder which automatically receive the data from the storage specified to the user in server. Application, additionally provide a graphical representation of all the data that are being used by user in form of File formats and storage space available. In this manner, private cloud provides certification to organization that their valuable data is inside organization and operated in safe hands.

II. LITERATURE REVIEW

Distributed storage gives access to the clients of an association to store and share their information. Since all the execution of administrations is done by means of web, an association have absence of control over the information or the system. Presently the inquiry emerges here that: How the association get guarantee the confirmation of the security of their information that won't be gotten to by another person? How the execution of the application will be guaranteed constantly [8], [9]. However in 2007, Dropbox was acquainted with store information. Since Dropbox was considered among the best distributed storage as contrast with other because of its easy to use clean interface and its security as it uses two stage check. It offers free 2GB space for each client and it additionally offer free 500mb space on through referral. Client can without much of a stretch offer records among various clients and shared documents or envelopes are shown on client home screen.

Microsoft presented one drive in 2007, which gives free 15 GB space that permits its client to share information between clients. It works by utilizing Microsoft account. Client can without much of a stretch transfer or download documents. It likewise gives remote access to your pc from another PC by utilizing One Drive site. Clients are limited to transfer document of greatest 10 GB [10].

Google present distributed storage with name of Google drive in 2012, its client so they can share transfer or download information around the globe effectively. Google additionally offers 15 GB free space to each client and it is coordinated with Gmail. Client can likewise make new archive on run time and impart its information to various clients safely. Google permits its client to transfer record of most extreme 1Tb on server.

III. METHODOLOGY

3.1 Project Feasibility Analysis

3.1.1. Economic Feasibility

Feasibility in terms of economy the system is one time investment. The system cost is very much in control and it's that cost that if any organization wants to implement it the prevention of cost does not come in the way. The endeavours and cost have no comparison to the features of the system that are much higher than the cost of this system. The result that will be generated by this system is much extravagant as contrast with the genuine expense of the system. The system gives simplicity to an organization in terms of data ownership, network security and easy to understand environment.

3.1.2 Technical Feasibility

The system provides incredible feasibility in terms of technical aspects. The system fundamentally provides quick access to data. The central database of website is on one server so it retrieves data rapidly. The system is not design complex all the technical aspects that provides efficiency are covered and considered in designing the system.

3.1.3 Operational Feasibility

The system additionally provides feasibility in terms to operate it. The design is made on the basis on the standards of human computer interaction. Every function of the system is easily guided so the user does not want to search for the option and waste time to search for any functionality. The design is so simple that if a new user uses it he or she cannot find any difficulty to operate the system.

3.1.4 Schedule Feasibility

The schedule of this project is so feasible and planned in such a way that every intermediary deadline of the project is achieved and the schedule is according to the module of the project no over time or short time is provided in making each module. So the feasibility of this project is astounding.

Conclusion of Feasibility Analysis

To conclude it is said that the analysis of the project in terms of feasibility is checked almost all the objectives of feasibility is achieved in this project.

Iterative process model offers break down structure for the development of application in which one can break a large application into small modules. In Iterative development, source code is designed and developed and tested in repeated cycles until it is in proper working form then can be deployed to customers. With each iteration new features can be added too.

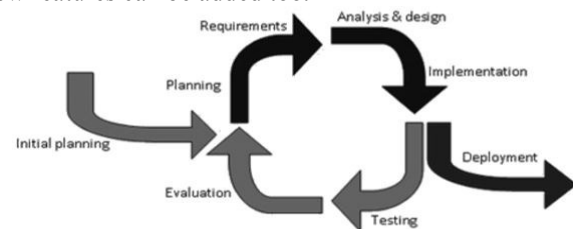


Fig. 1. (Iterative Model)

3.2 Requirement Gathering

Sky Shield Plus application is not only the need of organization but it will provide data ownership and quick access to the data of an organization. As every system has its pros and cons, the disadvantages of this system have out leveraged its advantages. There is no doubt that application allows user to access data from any place within network but technical problems can occur at any time. Like several times when users of application may face a hard time in downloading and uploading large documents as they tend to take huge amount of time.

Getting information of the problem from different business organizations were taken during the development of this project. Different organizations were visited and the work flow was observed and business routines were processed.

3.3 Development Methodology

3.3.1 Requirement Analysis

This phase is completed when all the data collected after reviewing of different cloud storage (Dropbox, Google drive, etc.) through all means that we need to require for our system. When I compare public cloud storage that has been used by different organization that does not give assurance of data security or data will be accessed by anyone that does not have authority.

3.3.2 System Design

Design includes the database which is storing the information of each user; in short user database is maintained. Moreover, User Interface is a part of this phase.

3.3.3 Coding

This part will include the hands on to the implementation. Database is designed for which SQL Server database will be used, records will be fed and ERD will be established. User Interface part will include the language ASP.NET.

3.3.4 Testing

Testing which will ensure that the source code is working according to the scope that is set during the analysis phase.

3.3.5 Evolution

After successful completion of every phase, this project will get accepted if it can be deployed to an organization.

3.4 Performance Constraints

Performance is measured in terms of the output provided by the application. Requirement specification has vital impact in the examination of the system. Only when the requirement specifications are properly given, it is possible to design a system, which will fit into required environment. It rests largely in the part of the users of the existing system to give the requirement specifications because they are the people who finally use the system. This is because the requirements have to be known during the initial stages so that the system can be designed according to those requirements. It is exceptionally hard to change the system once it has been designed and on the other hand designing a system, which does not cater to the necessities of the client, is of no use.

3.5 Quality Requirements

The system would be based on very highly secured and high speed servers, so as to make sure that the data uploading and downloading would not get denser. If there would be a server power failure, then a backup server will be ready for i.e. will ensure that no hangs will be tolerated in the working of the system.

3.6 System Architecture

3-tier architecture is used, private cloud storage is based upon the three layers which are illustrated below:

3.6.1 Presentation Tier

Presentation Tier, data will be demonstrated to handlers through Internet Browser.

3.6.2 Application Tier

Application Tier, IIS, C#.NET, HTML5, CSS concepts will be used for development of the application.

3.6.3 Data Tier

Data Tier, is grounded upon the backend MS Sql Server 2008 i.e. database will be used.

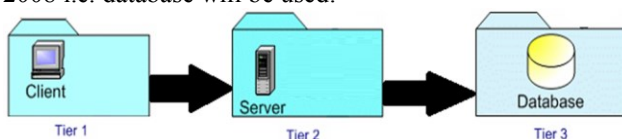


Fig. 2. “3 Tier System”

3.7 System Overview

An association top level progressive system and normally IT specialists here in Pakistan are always searching for the ideal arrangements through which the stream and usefulness of their business makes strides. Nonetheless, execution of private distributed storage, information and its assets dwell inside an association through which they have most elevated level of control over the information proprietorship, dependability, security and system i.e. altogether much quicker. Information can undoubtedly be overseen or broke down through graphical representation by an organization.

So we have presented a framework which encourages associations by giving a private Desktop application to cloud based secure information sharing application that let clients to store their documents in intranet. It permits client to share documents between various clients to another PC the length of clients are associated with the intranet. Erased documents are not consequently tossed for all time. Sky Shield Plus will keep it before it will be gone perpetually furthermore keep up renditions of the documents and check the change location in content records (.txt design) too. Not with standing this, when client duplicate records starting with one envelope then onto the next, it won't require those documents to be transferred once more. In this manner, it will spare clients a ton of time from transferring substance. Another imperative element is that the client's desktop is synchronized with the application. The client can check the records on the server from the desktop organizer which consequently get the information from the space permitted to the client in server. Other than that, the use of various document organizations' that are being transferred and downloaded by client's which is spoken to by a graphical outline.

Iterative procedure model has been taken after for the improvement of use in which one can break a huge application into little modules. In Iterative advancement, source code is composed and created and tried in reshaped cycles until it is in appropriate working structure. With the assistance of Iterative procedure model, Desktop Synchronization highlight has been included the running application.

Before actualizing a synchronized desktop application alongside the component of Uploading, Downloading, Data Sharing and numerous other valuable elements. The information gathered in the wake of investigating of various distributed storage (Drop box, Google drive, and so forth.) through all implies that we have to require for my framework. When we look at open distributed storage that has been utilized by various association and they pay an enormous sum on getting access on cloud server in spite of the fact that that does not give certification of information security or information will be gotten to by anybody that does not have power and the accessibility of getting to their information on cloud server unflinchingly.



Fig. 3. (Communication)

IV. RESULTS

The framework execution is plausible in all angles. (i.e. Financially, Technically and Operationally). Subsequently the execution expense of the application is just for one time speculation and offers its components life time.

The framework is actualized on intranet and can be gotten to anyplace inside the association where system association accessible and information will be put away on a solitary server so the accessibility of information for clients constantly.

V. CONCLUSION

Proposed system is the application which satisfies every one of the prerequisites of the client and actualized on intranet which resolves the issues in regards to security and execution issues. The client is getting access of the information put away on server in a brief timeframe in light of the fact that the information is on one server and the information safely will stay inside association by means of intranet association on neighbourhood server.

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