Centralized Bandwidth Distribution And Utility Provider

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Abstract— This paper is focused the problem faced by large offices and companies. It is helpful to keep observation on employees work for saving companies valuable time. Also it can control his activity. It provides server desktop sharing facility, so admin can give information to his employees over office work. It can offer efficient way of file sharing by using bandwidth distribution. This method will minimize unauthorized access to data according to priorities. Admin can allot or change bandwidth locally or remotely. It can provide facility of local mail server by which we can send or receive mail, maintain mail. Also it offers text chat and voice chat facility.

Keywords - Bandwidth Management

I. INTRODUCTION

Today in a large office it is not easy for administrator to handle the company by just sitting in the office thus making it quite a tedious job. For example the administrator cannot keep track of the work a employee is doing on his computer whether he is working or just doing some time pass on his computer which he is not meant to do. There are other problems like whether an employee can access whole data from the server which he is not meant to access to block such a data access is also not easy. So we thought of building this project which will stop unnecessary computer use by the employee and protect data from unauthorized users by using bandwidth distribution. The client project will have to give the ID and Password given to him by the server. Then it connects itself to the network and access local files from the network depending upon the bandwidth offered to him by the administrator.

The client will also have a downloader built in to it which can access files from the internet. The files can be provided a priority like how fast a files completes its download depending upon the bandwidth offered for that file to download. We are also implementing remote monitoring facility

In company there should relevant communication between employees which is fulfilled by maintaining local mail server. it provides facility of sending and receiving mail also We can send and receive attachments of type "txt", "doc", or any image file same like existing email system. It offers text chat and voice chat facility. Whenever admin wants to give information to his employees he can easily inform clients by server desktop sharing.

This paper is used TCP/IP based client server application. Client/Server network uses a network operation system designed to manage the entire network from a centralized point, which is the server. Client make request of the server and server responds with the information or access to a resource [1].
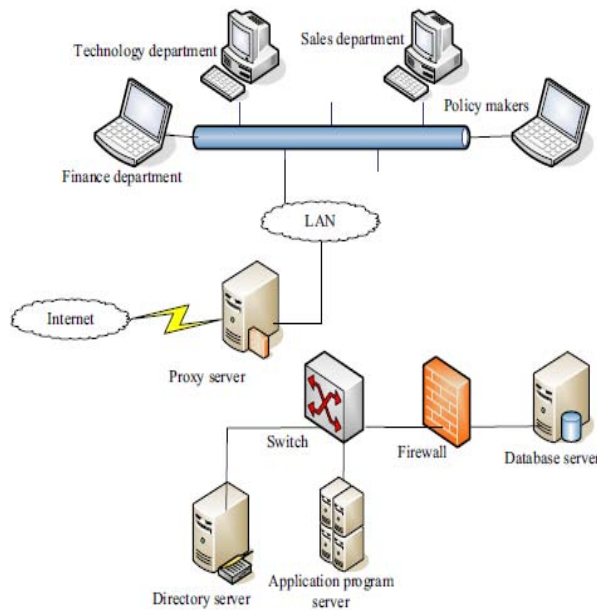
Figure 1.   system physical topology structure

Client-side plug-in is installed in each computer in the LAN using domain strategy. The system physical topology structure is shown in figure 1 [2].

II.   SYSTEM IMPLEMENTATION

It contains modules these are as follows

- Node monitoring :- Server will send screenshots of employee's pc to admin after regular time interval so that admin can monitor employee and will keep sight on employee' activity.
- Node control :- After getting information about employees work admin can control employee's pc. He can shut down his pc or can kill unwanted processes.
- Bandwidth management : - To make file sharing effective we are introducing this method. First admin will enter bandwidth information in database for each client according to his priorities. So whenever employee will request for file database first check allotted bandwidth for that particular employee. According to that he will receive that file byte by byte. If admin is not present on server he can modify bandwidth through GSM phone.
- Local mail server : - In this we are maintaining local mail server which is useful for communication between employees. In this first employee will create his account. After login he can send or receive mail. Also he can send or receive attachments like ".TXT",".DOC" and image files. Employee can delete his mails.
- Server Desktop Sharing : - In this server will send screenshots of admin pc to employee after regular interval of time. At that time employee's work will be stopped. Admin will give information to employee. After that employee's work will get start.
- Text chat and Voice chat : - In this employee can communicate with each other conveniently by text chat or voice chat.

III.   REQUIREMENT SPECIFICATION

Before you begin to format your paper, first write and save the content as a separate text file. Keep your text and graphic files separate until after the text has been formatted and styled. Do not use hard tabs, and limit use of hard returns to only one return at the end of a paragraph. Do not add any kind of pagination anywhere in the paper. Do not number text heads-the template will do that for you.

Finally, complete content and organizational editing before formatting. Please take note of the following items when proofreading spelling and grammar:

A. *Hardware Specification*

  1) *Client Side*

      a) *P IV processor and higher*

      b) *512 MB and higher RAM*

       c)   *20 GB HDD and higher*

       d)   *Fast internet connection*

  2)   *Server side*

       a)   *P IV processor and higher*

       b)   *512MB and higher RAM*

       c)   *20 GB HDD and higher*

       d)   *Phone connected with cabl*e

       e)   *Ethernet Switch and cables*

B.   *Software Specification*

- Windows Xp or higher
- Frontend:-C#.Net 2008
- Backend:-SQL server 2005

IV.   SCOPE

In our project we will develop a client server architecture where all the control will be passed on the server which may be also called as the administrator pc. The client software will send screen shots automatically after specific time interval to the server software which can be viewed on the server. The administrator by viewing it can decide whether the employee is doing proper work or not thus we can keep track on every employee in organization.

In our project we will have a server which can be any system (PC) from the network. The server will have a database SQL server 2005 installed on it. Then we will feed all the information needed for a client to access the network such as password, priority of the client, amount of bandwidth offered to him and file permissions like what kind of files a particular client can access. The server will also keep track of the tasks going on the client whether the bandwidth offered to him is working properly or not, log of the activities of the client such as how much time he has logged in and out of the system. The server will also have the files that are to be shared by the system with the server.

The client project will have to give the ID and Password given to him by the server. Then it connects itself to the network and access local files from the network depending upon the bandwidth offered to him by the administrator. The client will also have a downloader built in to it which can access files from the internet. The files can be provided a priority like how fast a files completes its download depending upon the bandwidth offered for that file to download. The administrator can change the bandwidth offered to a specific client and when the client connects to the server next time the changed bandwidth automatically gets implemented in his work. By using this project we can provide facility of sending and receiving mails also we can delete mails or restore existing mails.

V.   CONCLUSION

We need one application in all types of offices which will provide efficient way of communication between employees of company also manager or administrator has to keep sight on employees work, whether they are doing their work or just making time pass. Company never wants to waste its prestigious time, so we are developed such application which will help us to overcome from this problem.

Also we need to protect unauthorized access to data and protect data from unauthorized users by using bandwidth distribution. The client project will have to give the ID and Password given to him by the server. Then it connects itself to the network and access local files from the network depending upon the bandwidth offered to him by the administrator. This facility is provided by our application. Also admin can modify bandwidth offered to each client by using mobile phone. Also we are able to develop this application which supports local mail server which can maintain employees mail also allow them to send and receive mail. It also provides voice chat and text chat facility.

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