

DESIGN OF WEB BASED INFORMATION SYSTEM WITH DOWNLOADED CONTENT FROM BULLETIN BOARD SYSTEM

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Abstract

Bulletin Board System (BBS) has used for many years as an access point for information distribution. Currently, most of BBS system was replaced by World Wide Web (WWW) system. Internet based application, especially WWW has several advantages, such as “more user friendly interface”, “graphical based system”, “accessible from any point in the world”, etc. Many BBS systems move to Web Based System, but in several cases, there are some restrictions in the original system.

The restrictions usually perform to protect data security and integrity. For the restricted systems that have BBS module as an access point, there is a solution to distribute the content of information without modifying the original system.

This paper will describe one solution alternative to solve that problem. The system is a Web-based platform connected to a database that has a content downloaded from the original system. One program module will download every new data or file periodically from the original system and store the downloaded data automatically to the mirror database connected to the Web-based system. Web-based system will manage the user access to the mirror database.

1. BACKGROUND

Bulletin Board System (BBS) has used for many years as an access point for information distribution. Currently, most of BBS system was replaced by World Wide Web system. Internet based application, especially WWW has several advantages, such as “more user friendly interface”, “graphical based system”, “accessible from any point in the world”, etc. Many BBS system was moved toward Web Based System, but in several cases, there are some restrictions in the original system that disallows to do some modification or additional connection.

The restrictions usually perform to protect data security and integrity. For the restricted systems that have BBS module as an access point, there is a solution to distribute the content of information without modifying the original system. This paper will describe the solution.

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II. BULLETIN BOARD SYSTEM (BBS)

BBS software is software that allows a computer to be used as a message posting and reading system. Many BBS computers also allow the users to send private messages to other users, and to "download" files that are stored on the computer [3].

Figure-1 show the picture of BBS, it's connection, and it's terminal access. Usually, the terminal is a dumb terminal. Every command typed by the operator will interpret by the server. In the case that the operator asks to download a file, the server will send the file using certain transfer file protocol.

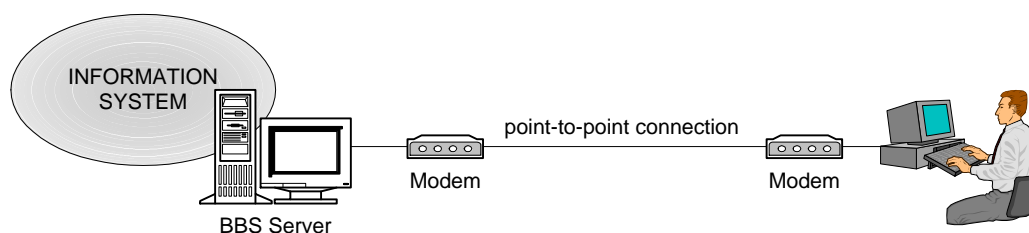


Figure 1. BBS system

Computer program can be created to simulate the operator behavior, if it is known exactly the sequence of characters to be sent to the server. It must be known also, how to synchronize it with the server response. In this scheme, the server will sense the same request from the terminal. Figure-2 shows how "download module" will replace the terminal and operator. The correct sequences of command can be arranged to download a correct file from the BBS server. This file can be process by other programs for other purposes.

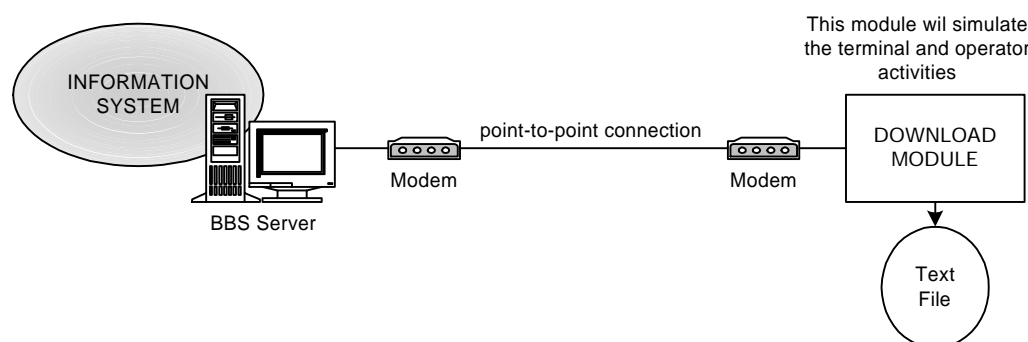


Figure 2. Module for Terminal & Operator Simulation

III. SYSTEM CONFIGURATION

Figure 3 below show the more detail of proposed system configuration. All system is divided into two parts. First, the original platform that has a BBS as an access point. Second, the duplicate platform, consist of download module, format converter & update module, mirror database, and a web server.

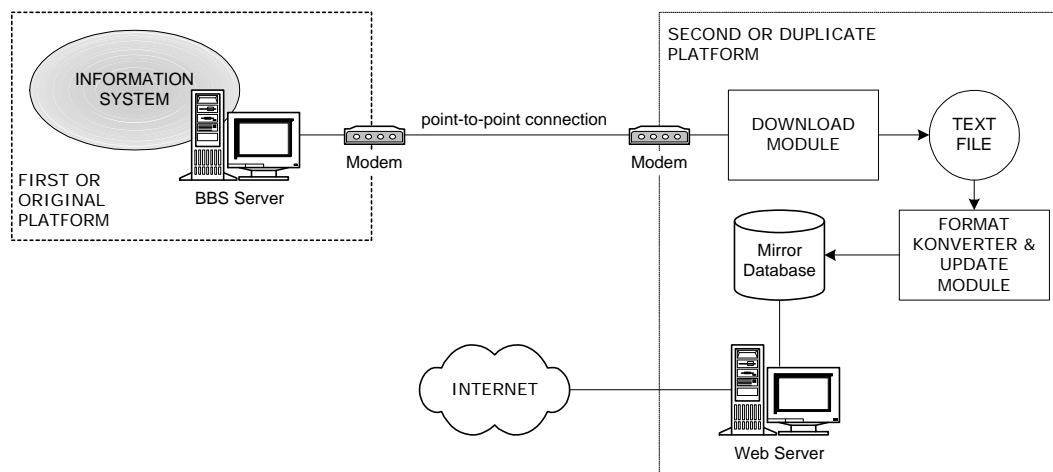


Figure 3. System Configuration

The “download module” will connect to the BBS and download each new data file periodically. After download one file, “download module” will call “format converter and update module” to convert data on that text file to a database format and update its automatically to the database. Database will store all downloaded data and will be updated every time new data available. This mirror database also can be functioned as a data backup system of the original system. User from the Internet can access data store on the database through the Web server. Web server is programmed using CGI to manage data access from the user.

IV. SECURITY ISSUES

The connection between Original and Duplicate platform only establish in small duration time periodically. When the connection to BBS not establish, it is guaranteed that no way to access the original system from the Internet. When the connection to BBS is established, there is almost impossible to access the original system from the Internet, because the protocol used to connect to BBS is not TCP/IP protocol.

V. CONCLUSION

The architecture proposed in this paper can be used to distribute information stored in the restricted platform that have a BBS as an access point. Accessible data will be duplicated in the second platform, so the second platform also will be functioned as a backup system. User from the Internet almost impossible to access the original system, even it’s happen when the BBS connection was established.

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