Parental control using web browser

: A Review

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Abstract - *This seminar report presents the development of a Parental Control System which is having capabilities like remote monitoring and controlling of internet access on computer through GSM modem. Parental Control Internet Access (PCIA) continuously monitors the internet usage on a computer and on monitoring it checks the URL entered further send URL entered to the database. In the database we have a list of URLs which are restricted on our computer. If the entered URL is found in our list then it will send the details of that URL to the parent's cell phone with the help of the GSM modem. The GSM modem will send a SMS to the parent and the parent will get an idea about what is going wrong on his computer from anywhere and as a result he will send a SMS to GSM modem with the help of which he will close the running browser. It saves huge human labour. This system allows to the parents to monitor the internet access of their child from anywhere and hence makes it easier for parent to monitor the actions on computer. So GSM based PCIA is more efficient approach to monitor the computer.*

Key Words: GSM, GSM MODEM, SIM.

I. INTRODUCTION

At present, most of the systems in network (client-server network) have the traditional method of proxy server to access data on internet. Proxy server requires a user information which may turn harmful sometimes so a new technology named as Parental Control Internet Access (PCIA)is discussed to overcome it. Apart from being a boom, PCIA wipes out all the cons of conventional systems. Parental Control Internet Access (PCIA)is a sophisticated system which allows parent to collect the information of the websites accessed by his/her children. Parental Control Internet Access (PCIA) include various things such as a computer at home, database of sites, and last but not the least a GSM Modem. "Parental Control Internet Access (PCIA)" implements the emerging applications of the GSM technology. Using GSM networks, a control system has been proposed that will act as an embedded system which can monitor and control appliances and other devices locally using built-in input and output peripherals. Remotely the system allows the user to effectively monitor and control the house/office appliances and equipment via the mobile phone set by sending commands in the form of SMS and receiving the appliances status. The main concept behind the project is receiving the sent SMS and processing it further as required to perform several operations. The type of the operation to be performed depends on the nature of the SMS sent. The principle in which the project is based is fairly simple. First, the sent SMS is stored and polled from the receiver mobile station and then the required control signal is generated and sent to the intermediate hardware that have designed according to the command received in form of the sent message. Sending written text messages is very popular among mobile phone users. Instant messaging, as it is also known, allows quick transmission of short messages that allow an individual to share ideas, opinions and other relevant information.

The proposed system will use the above concept to design a system that acts a platform to receive messages which in fact are commands sent to control different appliances and devices connected to the platform. The proposed system will use control system which is based on the GSM technology that Effectively allows control from a remote area to the desired location. The application of our suggested system is immense in the ever changing technological world. It allows a greater degree of freedom to an individual in controlling the home/office computer. So proposed system will discuss Parental Control Internet Access (PCIA)through GSM modem. Parental Control Internet Access (PCIA) will help parent to know the actual time spend on internet by his/her child, in addition to it a parent could also know what is accessed.
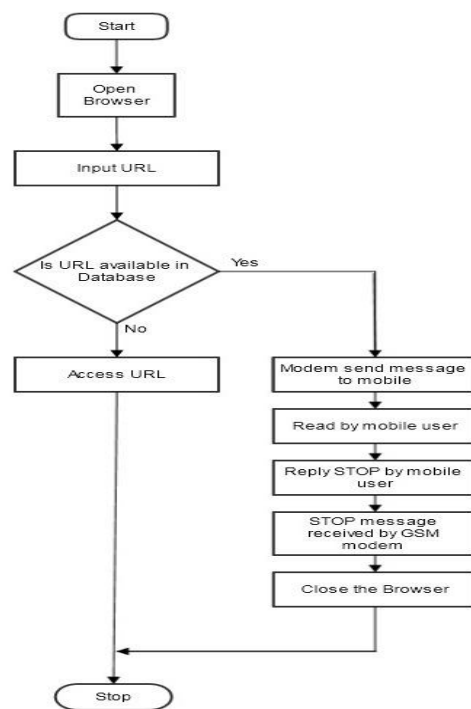
II. LITERATURE REVIEW

An Internet access control protocol is described. The purpose of the scheme is to allow controlled access to the internal resources of the network, and only trusted systems can gain access to external networks. This scheme is a variant of the original scheme of Iqbal and Poon (1992) which required two levels of authentication. However, it is possible to simplify the scheme and retain the security features with only the packet level authentication. The scheme uses the RSA and the DES security algorithms to enforce access controls on Internet communication requests. The simplified access control scheme does not require session initiation authentication, hence eliminating the overheads of the RSA encryption and decryption process at the hosts and network access control gateways. The overheads incurred due to the extra access control procedures are found to be smaller in comparison with the original Internet access control scheme and the visa scheme. The cyber world has come to have real beneficial and harmful effects on those who access it often. Among the detrimental effects, perhaps nothing is more troublesome than the dangers posed to children by scrupulous users. In his book, Should Social Networking Be Banned? Espino (2008) details one of the most serious of these consequences—the use of the Internet by child predators: In July 2007, the social network service Myspace identified and removed 29,000 known sex offenders' profiles from its website. This figure, however, only includes members who used their real names to register on Myspace and is more than quadruple the number that Myspace had estimated earlier. Also, by that time, around 100 cases of members using Myspace to commit crimes was publicly reported. Not only have children been exposed or fallen prey to online predators; they also succumb to the dangers of cyber-stalking, harassment, and identity theft. This often occurs because many Internet users are too trusting or are simply not aware of the dangers present in the online world. Some parents believe the easiest and most effective solution to these online dangers is to prohibit children's use of the Internet (Espejo 2008; Aftab, 2000; Internet Safety, 2009). Yet experts argue that not exposing children to the beneficial utilities of the Internet—social networking sites included—does more harm than good. After all, these sites help young people create and maintain life-long connections with others and give them a sense of community. Additionally, while children and teenagers on MySpace and similar networking websites face potential risks, most use online communities to develop real-life friendships, and not to merely communicate with strangers (Espejo, 2008). Indeed, according to Aftab (2000), to deny children Internet access is to "deny them the tools they need to succeed. The Internet isn't optional anymore—it's essential to our children's future. There are so many ways parents can make sure that their children are armed against the darker side of the Internet without unplugging them completely" [1].

Rather than secluding children from the Internet, the website KidsHealth.com (2008) suggests that getting involved in children's Internet use is a far more effective tool in protecting them: "Taking an active role in your kids' Internet activities will help ensure that they benefit from the wealth of valuable information it offers without being exposed to potential dangers"[3].

III. PROPOSED SYSTEM

3. CONCLUSIONS

This paper provides a detailed literature review and gives an idea that how children can be protected from inappropriate content on website GSM based technique will send automatic message to the parents so that parent can restrict children from using that website.

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