

Secure Educational Network

Dr.R. Udayakumar, Dr.V. Khanaa

Bharath University

Ruskumar2007@hotmail.com

drvkannan62@yahoo.com

Abstract:

Communication has been made possible since human desires to communicate from one corner to another corner. Every way we have used many resources in communication and reached out around the globe. Today communication has been developed for various sectors in a country. In India, primarily in education sector, many schools and colleges have been providing internet facility for students. Our paper deals with one of the security protocol, its – secure educational network to educate students without resisting internet as only the education medium. We call it as – Secure Data Monitor Protocol.

Keywords:Computer, Networks, Communication, Security, Education, monitor

INTRODUCTION :

Education develops with students. Education has developed from – Black Board to _ white board (Screen). Parental control has become necessity in those educational institutions.

System Administrators provided security related policies to prevent some sites from being accessed. In spite of using policies, protocols can be implemented to view sites securely. This protocol refines the data suitable for education and allows textual information and graphics which is easily configurable.

Existing system

Few decades back, we were in the seed stage of education. They are bound to geographical limits since, students learnt from what they see and hear. By the growth of technologies, they need to collect information from all over the world.

Today's education system in developed countries, have growth advanced as students can get information in the way he/she wants. Recently some schools in US have issued Apple iPad to make education easier. Even in some schools virtual education is made for students to get better understanding perspective. But a developing country like India, education is being facilitated

with networks so that students can easily communicate and get better knowledge.

In case of facilitating with network, students are allowed to visit website that have been white listed (i.e) only the websites allowed by System Administrator can be viewed by students. As education is being developed, students are in need to search for more information through internet. Internet became as a useful educational medium.

Internet provides more interactive information and reduces time to search for information. Many websites and web apps have been created especially for education that delivers useful contents for those who need it. For every educational activity students rely on internet.

Internet holds much of the useful data which can be shared among everyone. More institution uses internet as a medium of communication with its students. Some institutions use internet as an educational resource such as sharing e-books, downloadable data,. Groups and blogs are formed by the students to share information and communicate for academic activities. (Eg. Google Reader, Wordpress).

Hurdles:

Since internet is a mass network, issues related security, parental control needs to be checked often. Large number of informational websites allows advertisements or misleading links or social activities that may disturb the student while

surfing the internet for information or for communication.

System Administrators creates policy and parental control settings to block those kinds of websites. Since it is a software related method, it is more fragile and some policies may not meet the terms of institutions. Anti-virus software provides web-blocking and ad-blocking facilities. Still there is no point in blocking a whole website for an advertisement or service.

Protocols:

In computer science the word algorithm is a synonym for the word procedure so a protocol is to communications what an algorithm is to mathematics. Systems do not use a single protocol to handle a transmission. Instead they use a set of cooperating protocols, sometimes called a protocol family or protocol suite.

Envisioned System

To eliminate the hurdles in educating through internet, we introduce SDM protocol. This protocol monitors the web contents and filters according to educational institution specification. By this, education can be given without resisting internet as only then education medium.

Bit 0 : specifies the acceptable or rejectable.

Bit 1 : specifies the continuity of packets. Bit

2-3 : specifies the type of content.

Destination address (32 bit)

An SDMP address indicating the receiver of the packet. As with the source address, this may be changed in transit by a network address translation device.

Data (32 bit) : The data portion of the packet is in the format of XML. Its contents are interpreted based on the value of the Protocol ctype field.

Conclusions:

This proposed protocol educate all the students from the block of Black list and able to utilise the Internet resources in an effective manner. Any website can be allowed to be viewed inside institution without compromising the policy of institution. Students are benefited through the SDMP and they really get the essence of World Wide Web.

Developers can develop web apps and build websites comply with SDM protocol. Special type of web apps can be developed for education. Web apps advanced than e-books can be developed for better education.

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