# Guarding the 'Net - How Internet Monitoring Keeps Kids Online, In Line

Internet use is a part of many students' daily routines, in part because today's children have grown up with computers. Computers are integrated into their communication habits and are used as a tool to help students work more efficiently. In addition, the Internet provides a vast store of online knowledge and resources. Web access in the classroom has a dark side, however, when Internet use becomes Internet abuse.

## E-Rate Requires Monitoring

This was undoubtedly the rationale behind the E-Rate stipulation that requires participating schools to monitor or filter objectionable content on networks that serve students. E-Rate, a provision of the Telecommunications Act of 1996, was designed to provide eligible schools and libraries in the U.S. with discounts on telecommunications services, Internet access and internal connections.

It was E-Rate funding concerns that initially caused PACE-Brantley Hall School, an independent, nonprofit, K-12 grade school for children with learning differences, to search for a software program that would control what people were doing on the school network. Says James Glase, network administrator for PACE-Brantley Hall School, "When we implemented our LAN, we opened up a huge door to the outside world, which allowed people in and out of our network transparently." Glase realized he needed to find a software solution that would safeguard the school network from abuse, while protecting the students who use the Internet for legitimate study purposes.

### The Solution

Glase found Pearl Echo, an Internet monitoring software program that is designed to monitor the Internet activity of multiple PCs from a central location. Pearl Echo tracks most forms of Internet communications including web, e-mail, chat, instant messaging, file transfers and newsgroup postings.

Pearl Echo communicates network activity through reports that provide details such as the top Internet users on a network and the amount of time they spend online. Reports also show the most frequented web sites, e-mail transactions, news group postings, file transfers and chat groups. Furthermore, Pearl Echo's Quick-Link feature automatically links to reported web sites and includes full content restoration of all inbound and outbound communications.

### **Block and Allow Lists**

In addition to monitoring Internet activity, Pearl Echo can block users from visiting specified Internet content. PACE-Brantley Hall School, for example, uses the pre-configured "block and allow" list that accompanies every purchase of Pearl Echo. Block and allow lists help the software to block out

offensive web sites from being viewed and allow web sites that are educational. With Pearl Echo, a network administrator can add, edit and delete web sites from the block and allow list, as needed.

# Keyword Filtering

Pearl Echo also provides keyword filtering so that a school can, for example, filter out all incoming e-mail referencing pornography. Pearl Echo filters e-mail, chat room conversations, instant messages and newsgroup postings according to a predefined set of keywords, in the interest of protecting network users.

#### An Inside Job

Although Glase initially set up the software as a provision of the E-Rate program, he soon discovered that the school network was being used for activities that had nothing to do with school. Says Glase, "After we installed the software, we found out that peer-to-peer file sharing software and Jackass movie clips were pretty popular with our students. Let's suffice to say that many of the sites being visited were anything but educational in nature."

Shortly after installing the software, two students decided to challenge the system. Despite signing a comprehensive, three-page Internet use agreement, Pearl Echo revealed that two students had visited forbidden web sites. Despite a verbal warning, one of the students again violated the agreement and was subsequently expelled.

School administrators soon learned that Pearl Echo could also help alleviate the risk of potential legal liabilities. Soon after Pearl Echo was purchased, an incident occurred with a teacher accessing inappropriate web content and the teacher was quickly reprimanded. Without the monitoring software in place, the teacher's actions would have gone on unchecked and the school could have been liable if students or parents had complained about the teacher's online activities.

### Different Features for Different Folks

One of Pearl Echo's features that particularly impressed James Glase was the ability to set varying levels of restrictions for different user groups. At PACE-Brantley Hall School, students and teachers use unique IDs as user names to logon to the network. Because Pearl Echo can be set to allow Internet access at certain times of the day, students at PACE-Brantley Hall School are provided Internet access from 7 A.M. until 5 P.M. Teachers are allowed access all day. Also, teachers are allowed to visit some sites that students are not. For example, teachers have limited online shopping privileges while students do not.

In addition to pinpointing network abusers by user name, Pearl Echo recognizes each computer's "MAC address," which is a unique machine ID embedded into a computer's hardware. In this way, a network administrator can prove a particular machine was used to visit a forbidden site or

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send unauthorized e-mail. At PACE-Brantley Hall School, Glase compares this information with teachers' classroom computer logs to track down offenders.

Although Glase finds Pearl Echo easy to use, he says it would be very difficult for students to hack. According to Glase, "When Pearl Echo is running on a computer, it is transparent to the user. Plus, the software resides on a restricted server so there is virtually no way a student could gain access to the system to disable the program."

### Safe Surfing

Although students were obviously happier when they could freely roam the World Wide Web, PACE-Brantley Hall School administrators and parents now rest assured that there are controls in place to protect children online. Says Glase, "I'm not Big Brother. I am just making sure the school network is used for what it was originally intended – helping children learn. There are some scary things out there in cyberspace. With Pearl Echo in place, we are more confident our students are safe while they surf at school."

Pearl Software (800) 732-7596 (800- PEARL96) www.pearlecho.com