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Lance Wilkinson
Systems Design Specialist
Digital Library Technologies

PreciseMail Anti-Spam Gateway Allows Open Information Exchange While Eliminating Spam for Penn State University Library Users

Background

Penn State has awarded more than a half-million degrees, and has been Pennsylvania’s largest source of baccalaureate degrees at least since the 1930s. With its administrative and research hub at the University Park campus, Penn State has 23 additional locations across Pennsylvania. Digital Library Technologies (DLT), a unit of Information Technology Services at Penn State, implements and maintains the Library Information Access System (LIAS), which is the primary tool for accessing the University Libraries resources and services. DLT provides technical leadership in research and development of digital library initiatives, explores new technologies to support the University Libraries’ programs and services, and maintains the Libraries’ workstations and network services.



Spammers Exploit Library’s Open Information Exchange

Email and the Internet are strategic tools for both employees and patrons of the Libraries. In the late 1990’s, when Internet usage grew exponentially as a means of accessing Library resources and exchanging information, DLT began receiving complaints about spam. “Library employees use the Web and participate in a wide variety of digital communication methods, such as email newsgroups for research purposes. The very nature of our Library employees’ jobs often require that their email address and name be published on the Web making their email addresses ripe for harvesting by spammers,” said Lance Wilkinson, Systems Design Specialist at DLT.

The lack of experience and knowledge of how to deal with spammers only compounded the problem. Many times Library staff would respond to a spammer’s email. “It is a natural reaction for email users to feel angry and distraught over receiving pornographic or other offensive email messages,” said Wilkinson. DLT supports approximately 700 full-time and part-time faculty and staff, and various levels of patrons at 47 service locations, including World Campus, Penn State’s distance-learning program. Up to 30,000 email messages are processed per day. Some employees had reported that spam accounted for as high as 60% of their total messages. The Help Desk was receiving more and more complaints about spam, often regarding pornographic email.

To combat the spam issue, Library employees were initially using filtering capabilities available in Eudora, their standard email client. "This was not an effective spam filtering method because as soon as a rule was written, spammers would find a way to circumvent it. Email users kept adding rules and soon, the rules grew to an unmanageable level," said Wilkinson. "We felt this was a losing battle, and needed a solution that was more proactive at keeping up with the spammers."

The Challenge of Defining Spam in a Diverse User Community

One of the biggest challenges that Wilkinson had to address was defining spam. "One person may consider an email message to be spam, while another person may consider that same message to be legitimate. Because we are an open academic institution, it is important to find a balance of eliminating spam while continuing with an open information exchange, which is core to the University's mission," Wilkinson added. He said, "It is critical that we do not filter legitimate email, especially research." When investigating anti-spam solutions, Wilkinson felt he could avoid filtering legitimate email if the users had some type of control over defining what is legitimate email and what is spam.

PreciseMail Anti-Spam Gateway Gives Users Control Over Spam Definitions

After considerable testing and feedback from users with a diverse range of technical skills, DLT implemented PreciseMail Anti-Spam Gateway software solution. "It is effective at stopping spam out-of-the-box and users have control over defining what is spam." Wilkinson does not discard any email and uses a conservative threshold to tag and quarantine email that PreciseMail Anti-Spam Gateway identifies as likely spam. Quarantine message option is not globally implemented, but is available for users to opt-in. He allows users to change their tagging threshold according to their preference. Even when messages are identified as likely spam, users can decide how to be notified. Some users have enabled an email notification that contains a summary of all quarantined messages while others prefer to check their Web-based quarantined summary page. PreciseMail Anti-Spam Gateway's tagging feature is often used in combination with Eudora's filtering capabilities. An email message that

PreciseMail Anti-Spam Gateway tags as likely to be spam can be routed to Eudora's junk folder, or any other folder, for user review based on the Spam-Level headers inserted by PreciseMail Anti-Spam Gateway.

Users can also set-up their own allowlists of trusted senders (or domains) and blocklists (which always filters specified senders or domains). Wilkinson has also set-up some system-wide allowlists and several blocklists that apply to all users. According to Wilkinson, the use of these features also contributes to the overall spam-filtering accuracy.

PreciseMail Anti-Spam Gateway Improves Communication by Stopping Spam

PreciseMail Anti-Spam Gateway has proven to be an effective solution. Wilkinson found that over time, users have begun to trust that PreciseMail Anti-Spam Gateway will not filter their critical legitimate email. "Many users do not even bother to check quarantined messages anymore because they are always spam. I only check my quarantined email using the Web interface every 4-5 days."

Although DLT has implemented anti-virus software, Wilkinson uses PreciseMail Anti-Spam Gateway to stop email-borne viruses. He added, "When the latest Bagle-variant virus outbreak occurred, Process Software responded so quickly by providing customers with a filter rule update, that it was not necessary to wait for the anti-virus vendor's updates for a solution. I implement almost all of the filter updates provided by Process Software."

Wilkinson reported that since PreciseMail Anti-Spam Gateway has been implemented, their Help Desk receives far fewer complaints from users about spam. According to Wilkinson, this is attributed to PreciseMail Anti-Spam Gateway's effective spam-filtering techniques, user education on how not to respond to spammers, and user participation in the fight against spam. "Spam was once a losing battle, but now with PreciseMail Anti-Spam Gateway, we have tools to combat the spammers," said Wilkinson. "Giving email users control over spam allows them to contribute to the solution. The result is higher user satisfaction and a greater user buy-in in helping the IT department combat the problem."

ABOUT PROCESS SOFTWARE

Process Software is a premier supplier of communications software solutions to mission critical environments. With 20 years in business, we were early innovators of email software and anti-spam technology. Process Software has a proven track record of success with many Global 2000 and Fortune 1000 customers.



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