Daily e-mail volumes have increased over 25% since Winter quarter.

Currently 52% of incoming messages are marked as cpSPAM. (231,216 out of 437877 total emails processed May 7 2004)

This volume is pushing our infrastructure to a point that will threaten the integrity of our service levels beyond that which we've already seen this past academic year unless we reduce the volumes of unsolicited commercial email (UCE) aka SPAM. In order to maintain the integrity of the campus electronic messaging environment as described in the campus Responsible Use Policy ITS will implement a technique known as “greylisting”.

The goal of most UCE hosts is to send as many messages as possible at as low a cost as possible. This means that the email servers sending the messages are often set up using a minimal configuration to lower overhead and do not follow standard Internet messaging protocols.

Standard Internet protocols for email servers require servers to try to resend a message if the receiving machine flags a problem with the delivery. A large majority of UCE servers do not bother to resend a problem message, instead just moving on to the next user on their list to send their SPAM message. Grey-listing takes advantage of this fact, relying on Internet standards to validate messages and rejecting those that do not follow standard behavior.

White-listing

White-listing is the act of manually entering particular sources of email as valid sources and treating them as such. ITS has established a set of valid sources, such as anything.edu and configured them into our email gateways. ITS has also established a process for campus users to submit a valid site for addition to the white-list, thus avoiding messages from those sites being marked as SPAM.

Grey-listing

Grey-listing uses the premise that anyone not already on the white-list is considered a suspected UCE. Since standard Internet messaging protocols require an email server to resend a message if there was an interruption in the delivery, Cal Poly’s email gateways will reject a message not already on the white-list and sent from a user/server combination seen for the first time, asking the sending server to resend the message.

Messages coming from valid sites will resend the message, and when seen for the second time, Cal Poly will route as normal and post the “from user/server” combination to the white-list. Further messages delivered from that “from user/server” combination will now be trusted as valid and routed normally without delay.
Messages from UCE servers not using standard protocols will not resend the message, thus lowering the overall volume of mail.

The volume of UCE is predicted to be reduced by as much as 50-85%.

This technique is not based on message content evaluation, but strictly on standard Internet messaging protocol behaviors.

ITS will follow the same White-list request procedures if for some reason a valid source location is not following standard protocols.

**IMPACT OF THE IMPLEMENTATION**

The current date for implementation is Sunday May 23, 2004.

During the week of May 23 – 29 users may experience a delivery delay of 30 minutes from some users outside Cal Poly. **Messages from sites already on Cal Poly’s White-list will not be delayed.**

This possible delay is due to the fact our gateways will reject a message seen for the first time from a particular “from user/server “combination. Our gateways will ask the email servers to resend these first time messages. The delay will depend on the email server sending the message but will be at least 30 minutes for the sending email server to resend the message. Once resent, the source is tagged as valid and any further messages will be delivered without delay.

Think of it as building a guest list to an exclusive party. Guests (email messages) will no longer just be admitted to the party without an invitation. They must go back home, get their invitation and once presented, they’re on the guest list for good – coming and going as they need without delay. Those without an invitation never bother coming back and knocking at the door.

The email volume is expected to be reduced by 27-47% taking us back to volumes we were seeing in November-December 2003.