Abstract

In this paper, a new e-mail management system is demonstrated in which all messages are prioritized. Each type of priority message is handled with a special method to enhance the
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efficiency of the proposed e-mail system. Also, a new management technique for user inbox is introduced. In addition, a minor upgrade in TCP (Transmission Control Protocol) message confirmation (ACK) is demonstrated, to reduce the bandwidth consumption. Finally, the network simulator ns-2 is used to evaluate the new proposed e-mail management system. The obtained results show that the proposed system outperforms the traditional ones from points of view of bandwidth, overall system efficiency, packet loss, and delay.

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**Index Terms**

Computer Science Information Retrieval

**Key words**

Internet Protocols E-mail System

SMTP

POP3

UDP

TCP