          OSI connectionless transport services on top
          of UDP Applicability Statement for Historic Status

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Abstract

   RFC 1240, "OSI connectionless transport services on top of UDP", was
   published as a Proposed Standard in June 1991 but at this time there
   do not seem to be any implementations which follow RFC 1240. In
   addition there is a growing concern over using UDP-based transport
   protocols in environments where congestion is a possibility.

1. Use of RFC 1240 Technology

   A message was sent to the IETF list in October 1998 seeking any
   information on the actual use of the technology described in RFC
   1240. A number of responses were received, including from the
   International Organization for Standardization (ISO), the keeper of
   the OSI protocols. None of these messages pointed to any current use
   for this technology. Most of the messages which made any
   recommendation did recommend that RFC 1240 be moved to historic.

2. Responsiveness to Congestion

   Since 1991 there has been a great deal of experience with the
   complexities of dealing with congestion in the Internet. Congestion
   control algorithms have been improved but there is still work
   underway to further understand the issues. In this environment any
   UDP-based protocol is somewhat worrisome since quite frequently
   people who use UDP-based protocols invent their own reliability and
   congestion control functions which may not include the results of the
   current state of the art. This leads to a dange r of congestion
   collapse with potentially quite serious consequences for the network
   in which it is run. See RFC 896 for a discussion of congestion

collapse.

In the case of RFC 1240, the authors seemed to assume that if some
level of reliability was needed in an RFC 1240 environment that the
reliability algorithms and the congestion control algorithms which
would then be required would reside in the OSI protocols running over
the UDP transport. It is far from clear that any perceived
advantages of running over UDP would not be eclipsed by the
difficulties experienced in trying to create a reasonable congestion
control algorithm. Implementers would likely find that running over
TCP as RFC 2126 describes is the better choice.

3. Conclusion

Due to the lack of use of the technology described in RFC 1240 and
the issues surrounding congestion control in the Internet, RFC 1240
should be reclassified as Historic and its implementation actively
discouraged.

4. Security Considerations

This type of non-protocol document does not directly effect the
security of the Internet.

5. References

   RFC 896   Nagle, J., "Congestion control in IP/TCP internetworks",
              RFC 896, January 1984.

   RFC 1240   Shue, C., Haggerty, W. and K. Dobbins, "OSI connectionless
              transport services on top of UDP: Version 1.", RFC 1240
              June 1991.

   RFC 2126   Pouffary, Y. and A. Young, "ISO Transport Service on top of
              TCP (ITOT)", RFC 2126, March 1997.

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