

IEN 88

User Datagram Protocol

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User Datagram Protocol
Fields

Length is the length in octets of this user datagram including this header and the data. (This means the minimum value of the length is four.)

Checksum is the 16-bit one's complement of the one's complement sum of the source address and destination address fields from the internet header, the fields above, and the data, padded with zero octets at the end to make a multiple of two octets.

If the computed checksum is zero, it is transmitted as all ones (the equivalent in one's complement arithmetic). An all zero transmitted checksum value means that the transmitter generated no checksum (for debugging or for higher level protocols that don't care).

User Interface

A user interface should allow

the creation of new receive ports,

receive operations on the receive ports that return the data octets and an indication of source port, if any,

and an operation that allows a datagram to be sent, specifying the data and source port to be sent.

Protocol Application

The major use of this protocol is the Internet Name Server [3].

Protocol Number

This is protocol 17 (21 octal) when used in the Internet Protocol. Other protocol numbers are listed in [4].

References

- [1] Postel, J., "Internet Datagram Protocol -- Version 4," IEN-80, USC-Information Sciences Institute, February 1979.
- [2] Postel, J., "Transmission Control Protocol -- Version 4," IEN-81, USC-Information Sciences Institute, February 1979.
- [3] Postel, J., "Internet Name Server," USC-Information Sciences Institute, IEN-89, May 1979.
- [4] Postel, J., "Assigned Numbers," USC-Information Sciences Institute, RFC-755, IEN-93, May 1979.