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ANSI X3J11 comments on:

``Information Technology -- Portable Operating
System Interface (POSIX) -- Part xx: Protocol
Independent Interfaces (PII)''

PROCEDURAL COMMENTS

The review period was unreasonably short: about two weeks.

GENERAL COMMENTS

The document was well-written and provides useful state diagrams.

SPECIFIC COMMENTS

The use of "INADDR_ANY" in "bind()" is problematic for broadcasting to a single subnet when there are multiple subnets (network interfaces) available to the machine. While it may be possible to use the broadcast address of the subnet as the "bind()" address, there are several problems with this:

- According RFC 1122, the source address of the packet (i.e., the "bind()") address must not be a broadcast address.
- It is not clear whether Internet-style broadcast addresses (all bits are one) or Berkeley-style broadcast address (all bits are zero) are used.
- Within the PII, how does one discover all the network interfaces (IP subnets) available?

For example, with this API, it is not possible to set up peer-to-peer N-way UDP broadcasts on a single subnet (i.e., avoiding broadcasts on all subnets). This is a problem both for the transmitter and receiver of network broadcasts.