

Reviews

1. The British Computer Society, "Computing", June 20, 1974
 - a. Roy Bright, "Data Information...on-line", p. 11

This article starts by giving salient characteristics of the UK communications network as implemented by the Post Office since 1968. The author then gives a description of the anticipated future characteristics and the standardization goals of the International Telegraph and Telephone Consultative Committee (CCITT). The benefits of pulse code modulation techniques in addition to applications to data communications are discussed. The article finishes with a discussion of switching techniques.
 - b. Mike Oswald, "Designing with economy", p. 14

This article considers in a general way many of the main design characteristics of more complex types of data communications networks. The author considers the network components, their effective placement in terms of switching schemes and network architectures, and network optimization.
 - c. Peter Wilkinson, "Interworking by software", p. 16

The discussion in this article centers around the divers applications and the consequent need of standardization for data networks. The author initiates a discussion of the network software by introducing the Experimental Packet Switching Service (EPSS) due to start operation next year. The article discusses the software requirements through the use of simple examples and a brief discussion of the experimental packet switching network located at the National Physical Laboratory.
2. Computer, June 1974, Vol. 7 number 6

Akkoyunlu, E., A. Bernstein, and R. Schantz, "Interprocess Communication Facilities for Network Operating Systems", pp. 46-55.

The authors of this paper have brought the interprocess communication problem into focus from the standpoint of the operating system designer. They have presented several definitions in the area of resource sharing. This leads to a discussion of various approaches to the IPC protocol problem. The approaches presented are 1) the DCS at U. C. Irvine, 2) the "Walden" design and 3) the SBS system being implemented at SUNY, Stony Brook, the authors' location.

The authors compare each of the 3 approaches in terms of network architectures, hardware requirements, and overhead tradeoffs such as the impact of the architecture on routing information attached to messages. An additional comparison is made between the Walden proposal, itself being "message oriented", and the SBS proposal being "connection oriented." Both are more general than the UCI-DCS proposal.