

The Ethernet Local Network: Three Reports

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Abstract: This report reproduces three previously-published papers on the Ethernet local-area communications network:

Ethernet: Distributed Packet Switching for Local Computer Networks, by Robert M. Metcalfe and David R. Boggs. Appeared in *Communications of the ACM*, vol. 19 no. 7, July 1976.

Practical Considerations in Ethernet Local Network Design, by Ronald C. Crane and Edward A. Taft. Presented at the *Hawaii International Conference on System Sciences*, January 1980.

Measured Performance of an Ethernet Local Network, by John F. Shoch and Jon A. Hupp. A preliminary version was presented at the *Local Area Communications Network Symposium*, Boston, May 1979.

The first paper introduces the Ethernet-style network, a multi-access broadcast packet-switched communication system, and presents the theory (CSMA/CD) that underlies it. The second paper discusses the design and implementation of the prototype Ethernet system, and the final paper presents performance results based on several years' practical experience with that system.

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