

References

- [1] G B Adams and H J Siegal. The Extra Stage Cube: A fault tolerant inter-connection network for super systems. *IEEE Trans. Computers*, **C-31** (5), 443–454, May 1982.
- [2] J L Adams. The Orwell Torus communications switch. In *Proc. CEPT Seminar on Broadband Switching*, pages 215–223, Albufeira, Portugal, Jan. 1987.
- [3] S Ades, R Want and R Calnan. Protocols for real time voice communication on a packet local network. In *Proc. IEEE Int. Conf. Commun. (ICC '86)*, Toronto, June 1986.
- [4] H Ahmadi, W E Denzel, C A Murphy and E Port. A high-performance switch fabric for integrated circuit and packet switching. In *Proc. IEEE Infocom*, pages 9–18, New Orleans, Mar. 1988.
- [5] S Akhtar. *Congestion control in a fast packet switching network*. Master's thesis, Washington Univ., St. Louis, Missouri, Dec. 1987.
- [6] S R Amstutz. Burst switching — An introduction. *IEEE Commun. Mag.*, **21**, 36–42, Nov. 1983.
- [7] J M Appleton and M M Peterson. Traffic analysis of a token ring PBX. *IEEE Trans. Commun.*, **COM-34** (5), 417–422, May 1986.
- [8] H Armbruster. Applications of future broad-band services in the office and home. *IEEE J. Select. Areas in Commun.*, **SAC-4** (4), 429–437, July 1986.
- [9] H Armbruster and G Arndt. Broadband communication and its realisation with broadband ISDN. *IEEE Commun. Mag.*, **25** (11), 8–19, Nov. 1987.
- [10] F Backes. Transparent bridges for interconnection of IEEE 802 LANs. *IEEE Network Mag.*, **2** (1), 5–9, Jan. 1988.
- [11] G Barberis and D Pazzaglia. Analysis and optimal design of a packet voice receiver. *IEEE Trans. Commun.*, **COM-28** (2), 217–227, Feb. 1980.
- [12] K E Batcher. Sorting networks and their applications. In *Proc. Spring Joint Computer Conf.*, pages 307–314, 1968.

- [13] V E Beneš. On rearrangeable three-stage connecting networks. *Bell Systems Tech. J.*, **41** (5), 1481–1492, Sept. 1962.
- [14] R W Blackmore, W J Stewart and I Bennion. An opto-electronic exchange for the future. In *Proc. IEEE Int. Switching Symp. (ISS '84)*, pages 41A4.1–7, Florence, May 1984.
- [15] R J Boehm, Y C Ching and R C Sherman. SONET (Synchronous optical network). In *Proc. IEEE Globecom*, pages 1443–1450, New Orleans, 1985.
- [16] A Boleda and D Lasker. The architecture of Meridian SL integrated services networks. *Telesis two, (Bell Northern Research)*, 27–33, 1985.
- [17] P T Brady. A statistical analysis of on-off patterns in 16 conversations. *Bell Systems Tech. J.*, **47**, 73–91, Jan. 1968.
- [18] J R Brandsma. PHILAN: A fibre-optic ring for voice and data. *IEEE Commun. Mag.*, **24** (12), 16–22, Dec. 1986.
- [19] R G Bubenik and J S Turner. Performance of a broadcast packet switch. In *Proc. IEEE Int. Conf. Commun. (ICC '87)*, pages 1118–1122, June 1987.
- [20] K Bullington and J M Fraser. Engineering aspects of TASI. *Bell Systems Tech. J.*, **38**, 353–364, March 1959.
- [21] J B Butcher and K K Johnstone. Wafer Scale Integration. *Proc. IEE pt. E*, **135** (6), 281–288, Nov. 1988.
- [22] P Bylanski and D G W Ingram. *Digital transmission systems*. Peter Peregrinus for IEE, 1976.
- [23] L M Casey, R C Dittburner and N D Gamage. FXNET: A backbone ring for voice and data. *IEEE Commun. Mag.*, **24** (12), 23–28, Dec. 1986.
- [24] P Y Chen, P C Yew and D Lawrie. Performance of packet switching in buffered single-stage shuffle-exchange networks. In *Proc. 3rd Int. Conf. on Distributed Computing Systems*, pages 622–627, 1982.
- [25] T M Chen and D G Messerschmitt. Integrated voice/data switching. *IEEE Commun. Mag.*, **26** (6), 16–26, June 1988.
- [26] G L Chesson and A G Fraser. Datakit network architecture. In *Proc. IEEE Comcon Spring*, pages 59–61, 1980.
- [27] W Chou. *Computer communications: Volume II systems and applications*. Prentice-Hall, NJ, 1985.
- [28] I Cidon, I S Gopal and H Heleis. PARIS: An approach to integrated private networks. In *Proc. IEEE Int. Conf. Commun. (ICC '87)*, pages 764–768, Seattle, June 1987.

- [29] G Clapp, S Karr and M Singh. MAN architecture and services. AT&T submission to IEEE 802.6, Nov. 1987.
- [30] C Clos. A study of non-blocking switching networks. *Bell Systems Tech. J.*, **32**, 406–424, March 1953.
- [31] J P Coudreuse and M Servel. Prelude: An asynchronous time-division switched network. In *Proc. IEEE Int. Conf. Commun. (ICC '87)*, pages 769–773, Seattle, June 1987.
- [32] G J Coviello and P A Vena. Integration of circuit/packet switching by a SENET (slotted envelope network) concept. In *Proc. Nat. Telecommun. Conf.*, pages 42.12–17, Dec. 1975.
- [33] J N Daigle and J D Langford. Models for analysis of packet voice communications systems. *IEEE J. Select. Areas Commun.*, **SAC-4** (6), 847–855, Sept. 1986.
- [34] C Day, J Giacomelli and J Hickey. Applications of self-routing switches to LATA fiber optic networks. In *Proc. IEEE Int. Switching Symp. (ISS '87)*, pages 519–523, Mar. 1987.
- [35] M De Prycker and J Bauwens. A switching exchange for an asynchronous time division based network. In *Proc. IEEE Int. Conf. Commun. (ICC '87)*, pages 774–781, Seattle, June 1987.
- [36] M De Prycker and M De Somer. Performance of an independent switching network with distributed control. *IEEE J. Select. Areas Commun.*, **SAC-5** (8), 1293–1301, Oct. 1987.
- [37] M Decina. Broadband ISDN, whither ATM? In *IBM European Telecommun. Workshop*, Montpellier, France, Sept. 1988.
- [38] J D DeTreville. A simulation based comparison of voice transmission on CSMA/CD networks and on token busses. *Bell Systems Tech. J.*, **63** (1), 33–55, Jan. 1984.
- [39] J D DeTreville and W D Sincoskie. A distributed experimental communications system. *IEEE J. Select. Areas in Commun.*, **SAC-1** (6), 1070–1075, Dec. 1983.
- [40] D M Dias and J R Jump. Analysis and simulation of buffered delta networks. *IEEE Trans. Computers*, **C-30** (4), 273–282, Apr. 1981.
- [41] D M Dias and J R Jump. Packet switching interconnection networks for modular systems. *IEEE Computer Mag.*, **14** (12), 43–53, Dec. 1981.
- [42] C Ellis. Voice and data integration – The PABX as a local area network. In *Proc. Networks '84*, pages 445–450, Online, London, July 1984.
- [43] K Y Eng. A photonic Knockout switch for high-speed packet networks. *IEEE J. Select. Areas in Commun.*, **SAC-6** (7), 1107–1116, Aug. 1988.

- [44] K Y Eng, M G Hluchyj and Y S Yeh. A Knockout switch for variable-length packets. *IEEE J. Select. Areas Commun.*, **SAC-5** (9), 1426–1435, Dec. 1987.
- [45] K Y Eng, M G Hluchyj and Y S Yeh. Multicast and broadcast services in a Knockout packet switch. In *Proc. IEEE Infocom*, pages 29–34, New Orleans, Mar. 1988.
- [46] R M Falconer and J L Adams. Orwell: A protocol for an integrated services local network. *British Telecom Tech. J.*, **3** (4), 27–35, Oct. 1985.
- [47] T Feng. A survey of interconnection networks. *IEEE Computer Mag.*, **14** (12), 12–27, Dec. 1981.
- [48] M J Fischer and T C Harris. A model for evaluating the performance of an integrated circuit and packet switched multiplex structure. *IEEE Trans. Commun.*, **COM-24** (2), 195–202, Feb. 1976.
- [49] J W Forgie. Speech transmission in store and forward networks. In *National Computer Conference, vol. 44*, 1975.
- [50] J W Forgie and A G Nemeth. An efficient packetized voice/data network using statistical flow control. In *Proc. IEEE Int. Conf. Commun. (ICC '77)*, pages 44–48, 1977.
- [51] G Foster and J L Adams. The ATM zone concept. In *Proc. IEEE Globecom*, 1988.
- [52] A G Fraser. Datakit — modular network for synchronous and asynchronous traffic. In *Proc. Int. Conf. Commun. (ICC '79)*, pages 20.1.1–3, June 1979.
- [53] I D Gallagher. Multi-service networks. *British Telecom Tech. J.*, **4** (1), 43–49, Jan. 1986.
- [54] I D Gallagher. A multi-service network based on the Orwell protocol. In *Proc. IEEE Int. Switching Symp. (ISS '87)*, pages 979–983, Mar. 1987.
- [55] M Gerla and L Kleinrock. Congestion control in interconnected LANs. *IEEE Network Mag.*, **2** (1), 72–76, Jan. 1988.
- [56] S Giorcelli et al. Experimenting with fast packet switching techniques in first generation ISDN environments. In *Proc. IEEE Int. Switching Symp. (ISS '87)*, pages 388–394, Mar. 1987.
- [57] L R Goke and G J Lipovski. Banyan networks for partitioning multiprocessor systems. In *Proc. First Annual Symp. Computer Architecture*, pages 21–28, Dec. 1973.
- [58] J Gruber and L Strawczynski. Judging speech in dynamically managed voice systems. *Telesis two, (Bell Northern Research)*, 30–34, 1983.

- [59] J G Gruber. Delay related issues in integrated voice and data networks. *IEEE Trans. Commun.*, **COM-29** (6), 786–800, June 1981.
- [60] J G Gruber and N Le. Performance requirements for integrated voice/data networks. *IEEE J. Select. Areas in Commun.*, **SAC-1** (6), 981–1005, Dec. 1983.
- [61] E F Haselton. A PCM frame switching concept leading to burst switching network architecture. *IEEE Commun. Mag.*, **21** (6), 13–19, Sept. 1983.
- [62] M Hatamian and E G Bowen. Homenet: A broadband voice/data/video network on CATV systems. *Bell Systems Tech. J.*, **64** (2), 347–367, Feb. 1985.
- [63] H Hefes and D M Lucantoni. A Markov modulated characterisation of packetized voice and data traffic and related statistical multiplexer performance. *IEEE J. Select. Areas Commun.*, **SAC-4** (6), 856–867, Sept. 1986.
- [64] A M Hill. Switching and distribution networks for wideband optical signals. In *Proc. IEEE Int. Switching Symp. (ISS '87)*, pages 681–688, Mar. 1987.
- [65] M G Hluchyj and M J Karol. Queueing in space division packet switching. In *Proc. IEEE Infocom*, pages 334–343, New Orleans, March 1988.
- [66] W L Hoberecht. A layered network protocol for voice and data integration. *IEEE J. Select. Areas in Commun.*, **SAC-1** (6), 1006–1013, Dec. 1983.
- [67] A Hopper and R M Needham. *The Cambridge Fast Ring networking system (CFR)*. Technical Report No. 90, Computer Laboratory, University of Cambridge, June 1986.
- [68] A Hopper and R M Needham. The Cambridge Fast Ring Networking System. *IEEE Trans. Computers*, **37** (10), 1214–1223, Oct. 1988.
- [69] A Hopper and D J Wheeler. Binary Routing Networks. *IEEE Trans. Computers*, **C-28** (10), 699–703, Oct. 1979.
- [70] A Huang and S Knauer. Starlite: A wideband digital switch. In *Proc. IEEE Globecom*, pages 121–125, Nov. 1984.
- [71] J Y Hui and E Arthurs. A broadband packet switch for integrated transport. *IEEE J. Select. Areas Commun.*, **SAC-5** (8), 1264–1273, Oct. 1987.
- [72] D Hutchison. *Local area network architecture*. Addison-Wesley, 1988.
- [73] M Ilyas and H T Mouftah. Quasi cut-through: New hybrid switching technique for computer communication networks. *Proc. IEE Pt. E*, **131** (1), 1–9, Jan. 1984.
- [74] Y Jenq. Performance analysis of a packet switch based on a single-buffered banyan network. *IEEE J. Select. Areas Commun.*, **SAC-1** (6), 1014–1021, Dec. 1983.

- [75] M J Karol and M G Hluchyj. Using a packet switch for circuit switched traffic: a queueing system with periodic input traffic. In *Proc. IEEE Int. Conf. Commun. (ICC '87)*, pages 1677–1682, Seattle, June 1987.
- [76] M J Karol, M G Hluchyj and S P Morgan. Input versus output queueing on a space-division packet switch. *IEEE Trans. Commun.*, **COM-35** (12), 1347–1356, Dec. 1987.
- [77] P Kermani and L Kleinrock. Virtual cut-through: A new computer communications switching technique. *Computer Networks*, **3**, 267–286, Sept. 1979.
- [78] B G Kim. Characterisation of arrival statistics of multiplexed voice packets. *IEEE J. Select. Areas Commun.*, **SAC-1** (6), 1133–1139, Dec. 1983.
- [79] P Kirton, J Ellershaw and M Littlewood. Fast packet switching for integrated network evolution. In *Proc. IEEE Int. Switching Symp. (ISS '87)*, pages B.6.2.1–7, Mar. 1987.
- [80] A Kitamura et al. High speed and high capacity packet switching system architecture for ISDN. In *Proc. IEEE Int. Switching Symp. (ISS '87)*, pages 809–813, Mar. 1987.
- [81] R W Klessig. Overview of metropolitan area networks. *IEEE Commun. Mag.*, **24** (1), 9–15, Jan. 1986.
- [82] C P Kruskal and M Snir. The performance of multistage interconnection networks for multiprocessors. *IEEE Trans. Computers*, **C-32** (12), 1091–1098, Dec. 1983.
- [83] P J Kuehn. Fast packet switching. In *IBM European Telecommun. Workshop*, Montpellier, France, Sept. 1988.
- [84] J J Kulzer and W A Montgomery. Statistical switching architectures for future services. In *Proc. IEEE Int. Switching Symp. (ISS '84)*, pages 43.A.1–6, Florence, May 1984.
- [85] M Kumar and J R Jump. Performance of unbuffered shuffle-exchange networks. *IEEE Trans. Computers*, **C-35** (6), 573–578, June 1986.
- [86] D H Lawrie. Access and alignment of data in an array processor. *IEEE Trans. Computers*, **C-24** (12), 1145–1155, Dec. 1975.
- [87] C A Lea. The load sharing banyan network. *IEEE Trans. Computers*, **C-35** (12), 1025–1034, Dec. 1986.
- [88] T T Lee. Non-blocking copy networks for multicast packet switching. In *Proc. IEEE Int. Zurich Seminar on Digital Commun.*, pages 221–229, Mar. 1988.
- [89] T T Lee, R Boorstyn and E Arthurs. The architecture of a multicast broadband packet switch. In *Proc. IEEE Infocom*, pages 1–8, New Orleans, Mar. 1988.

- [90] J O Limb. Performance of local area networks at high speed. *IEEE Commun. Mag.*, **22** (8), 41–45, Aug. 1984.
- [91] L R Linnell. A wide-band local access system using emerging-technology components. *IEEE J. Select. Areas Commun.*, **SAC-4** (4), 612–618, July 1986.
- [92] M Littlewood, I D Gallagher and J L Adams. Evolution toward an ATD multi-service network. *British Telecom Tech. J.*, **5** (2), 52–62, April 1987.
- [93] B Maglaris and M Schwartz. Performance evaluation of a variable frame multiplexer for integrated switched networks. *IEEE Trans. Commun.*, **COM-29** (6), 800–807, June 1981.
- [94] J W Mark and J O Limb. Integrated voice/data services on Fasnnet. *Bell Labs. Tech. J.*, **63** (2), 307–336, Feb. 1984.
- [95] G M Masson et al. A sampler of circuit switching networks. *IEEE Computer Mag.*, **12** (6), 32–48, June 1979.
- [96] P W Matthewson and S R Wilbur. An integrated services switching system based upon a single-buffered banyan. In *Proc. IEEE Infocom*, pages 766–772, Mar. 1986.
- [97] N F Maxemchuk and A N Netravali. Voice and data on a CATV network. *IEEE J. Select. Areas Commun.*, **SAC-3** (2), 300–311, Mar. 1985.
- [98] N F Maxemchuk. Regular mesh topologies in local and metropolitan area networks. *AT&T Tech. J.*, **64** (7), 1659–1685, Sept. 1985.
- [99] R J McMillen. A survey of interconnection networks. In *Proc. IEEE Globecom*, pages 105–113, Nov. 1984.
- [100] D R Milway. *Binary routing networks*. Technical Report No. 101, Computer Laboratory, University of Cambridge, Dec. 1986.
- [101] S E Minzer. Broadband user-network interfaces to ISDN. In *Proc. IEEE Int. Conf. Commun. (ICC '87)*, pages 11.2.1–6, Seattle, June 1987.
- [102] R H Moffett. Echo and delay problems in some digital communications systems. *IEEE Commun. Mag.*, **25** (8), 41–47, Aug. 1987.
- [103] J F Mollenauer. Standards for metropolitan area networks. *IEEE Commun. Mag.*, **26** (4), 15–19, Apr. 1988.
- [104] W A Montgomery. Techniques for packet voice synchronisation. *IEEE J. Select. Areas in Commun.*, **SAC-1** (6), 1022–1028, Dec. 1983.
- [105] P J Mountain. The design and application of wideband switches. *British Telecom Tech. J.*, **1** (1), 73–81, July 1983.

- [106] J M Musser et al. A local area network as a telephone local subscriber loop. *IEEE J. Select. Areas Commun.*, **SAC-1** (6), 1046–1053, Dec. 1983.
- [107] M J Narasimha. The Batchier-banyan self-routing network: universality and simplification. *IEEE Trans. Commun.*, **36** (10), 1175–1178, Oct. 1988.
- [108] W E Naylor and L Kleinrock. Stream traffic communication in packet switched networks: Destination buffering considerations. *IEEE Trans. Commun.*, **COM-30** (12), 2527–2535, Dec. 1982.
- [109] R M Needham and A J Herbert. *The Cambridge Distributed Computing System*. Addison-Wesley, London, 1982.
- [110] P Newman. An investigation of high-speed data communications network techniques. Memorandum TRL/943, The GEC Hirst Research Centre, Nov. 1981.
- [111] P Newman. Message switching: A flexible approach to communications network design. Memorandum TRL/1001, The GEC Hirst Research Centre, July 1982.
- [112] P Newman. Data Signal Switching Systems. UK Patent GB 2 151 880 B, Dec. 1983.
- [113] P Newman. Message switching: An experimental model. Unpublished manuscript, The GEC Hirst Research Centre, Apr. 1983.
- [114] P Newman. Self-routing switching element for an asynchronous time switch. UK Patent Application 8824058.5, Oct. 1987.
- [115] P Newman. A broad-band packet switch for multi-service communications. In *IBM European Telecommun. Workshop*, Montpellier, France, Sept. 1988.
- [116] P Newman. A broad-band packet switch for multi-service communications. In *Proc. IEEE Infocom*, pages 19–28, New Orleans, Mar. 1988.
- [117] P Newman. *A fast packet switch for the integrated services backbone network*. Technical Report No. 142, Computer Laboratory, University of Cambridge, July 1988.
- [118] P Newman. A fast packet switch for the integrated services backbone network. *IEEE J. Select. Areas in Commun.*, **SAC-6** (9), Dec. 1988.
- [119] R M Newman, Z L Budrikis and J L Hullett. The QPSX MAN. *IEEE Commun. Mag.*, **26** (4), 20–28, Apr. 1988.
- [120] S Nojima et al. Integrated services packet network using bus matrix switch. *IEEE J. Select. Areas Commun.*, **SAC-5** (8), 1284–1292, Oct. 1987.
- [121] G Nutt and D Bayer. Performance of CSMA/CD networks under combined voice and data loads. *IEEE Trans. Commun.*, **COM-30** (1), 6–11, Jan. 1982.

- [122] P O'Reilly. Burst and fast packet switching: performance comparisons. In *Proc. IEEE Infocom*, pages 653–666, 1986.
- [123] P O'Reilly and S Ghani. Data performance in burst switching when the voice silence periods have a hyperexponential distribution. In *Proc. Int. Conf. Commun. (ICC'86)*, pages 537–542, Toronto, June 1986.
- [124] K Padmanabhan and D H Lawrie. A class of redundant path multistage interconnection networks. *IEEE Trans. Computers*, **C-32** (12), 1099–1108, Dec. 1983.
- [125] S N Pandhi. The universal data connection. *IEEE Spectrum*, 31–37, July 1987.
- [126] J H Patel. Performance of processor-memory interconnections for multiprocessors. *IEEE Trans. Computers*, **C-30** (10), 771–780, Oct. 1981.
- [127] S D Personick and W O Fleckenstein. Communications switching — from operators to photonics. *Proc. IEEE*, **75** (10), 1380–1403, Oct. 1987.
- [128] G Perucca. Research on advanced switching techniques for the evolution to ISDN and broadband ISDN. *IEEE J. Select Areas Commun.*, **SAC-5** (8), 1356–1364, Oct. 1987.
- [129] F E Ross. FDDI — A tutorial. *IEEE Commun. Mag.*, **4** (5), 10–17, May 1986.
- [130] A Schill and M Zieher. Performance analysis of the FDDI 100 Mbit/sec optical token ring. In *IFIP WG6.4 Workshop High Speed LANs*, pages 57–78, Feb. 1987.
- [131] H J Siegel. *Interconnection networks for large-scale parallel processing*. Lexington Books, 1985.
- [132] H J Siegel, R J McMillen and P T Mueller. A survey of interconnection methods for reconfigurable parallel processing systems. In *Proc. Nat. Computer Conf., AFIPS*, pages 529–542, 1979.
- [133] W D Sincoskie and C J Cotton. Extended bridge algorithms for large networks. *IEEE Network Mag.*, **2** (1), 16–23, Jan. 1988.
- [134] R A Spanke. Architectures for guided-wave optical space switching systems. *IEEE Commun. Mag.*, **25** (5), 42–48, May 1987.
- [135] D R Spears. Broadband ISDN switching capabilities from a services perspective. *IEEE J. Select. Areas Commun.*, **SAC-5** (8), 1222–1230, Oct. 1987.
- [136] K Sriram and W Whitt. Characterising superposition arrival processes in packet multiplexers for voice and data. *IEEE J. Select. Areas Commun.*, **SAC-4** (6), 833–846, Sept. 1986.
- [137] H S Stone. Parallel processing with the perfect shuffle. *IEEE Trans. Computers*, **C-20** (2), 153–161, Feb. 1971.

- [138] D T W Sze. A metropolitan area network. *IEEE J. Select. Areas Commun.*, **SAC-3** (6), 815–824, Nov. 1985.
- [139] T Takeuchi et al. Synchronous composite packet switching — a switching architecture for broadband ISDN. *IEEE J. Select. Areas Commun.*, **SAC-5** (8), 1365–1376, Oct. 1987.
- [140] A S Tanenbaum. *Computer networks*. Prentice-Hall, NJ, 1981.
- [141] A Thomas, J P Coudreuse and M Serval. Asynchronous time-division techniques: An experimental packet network integrating video communications. In *Proc. Int. Switching Symp. (ISS '84)*, pages 32C.2.1–7, Florence, May 1984.
- [142] R H Thomas et al. Diamond: A multimedia message system built on a distributed architecture. *IEEE Computer Mag.*, **18** (12), 65–78, Dec. 1985.
- [143] K J Thurber. Interconnection networks—A survey and assessment. In *Proc. Nat. Computer Conf., AFIPS*, pages 909–919, 1974.
- [144] F A Tobagi, F Borgonovo and L Fratta. Expressnet: A high performance integrated-services local area network. *IEEE J. Select. Areas in Commun.*, **SAC-1** (5), 898–913, Nov. 1983.
- [145] J S Turner. Design of a broadcast packet network. In *Proc. IEEE Infocom*, pages 667–675, 1986.
- [146] J S Turner. Design of an integrated services *packet* network. *IEEE J. Select. Areas in Commun.*, **SAC-4** (8), 1373–1380, Nov. 1986.
- [147] J S Turner. New directions in communications (or which way to the information age). In *Proc. IEEE Int. Zurich Seminar on Digital Commun.*, pages 25–33, March 1986.
- [148] J S Turner. Design of a broadcast packet switching network. *IEEE Trans. Commun.*, **36** (6), 734–743, June 1988.
- [149] J S Turner and L F Wyatt. A packet network architecture for integrated services. In *Proc. IEEE Globecom*, pages 45–50, Dec. 1983.
- [150] J von Baardewijk. An experimental all-in-one multi-service broadband switch. In *Proc. IEEE Int. Switching Symp. (ISS '87)*, pages 779–783, Mar. 1987.
- [151] J F Wakerley. A voice/data/packet switching architecture. In *Proc. Comcon Spring*, pages 194–199, San Francisco, Feb. 1985.
- [152] R Want. *Reliable management of voice in a distributed system*. Technical Report No. 141, Computer Laboratory, University of Cambridge, July 1988.
- [153] C J Weinstein. Fractional speech loss and talker activity model for TASI and for packet switched speech. *IEEE Trans. Commun.*, **COM-26** (8), 1253–1257, Aug. 1978.

- [154] C J Weinstein and J W Forgie. Experience with speech communication in packet networks. *IEEE J. Select. Areas in Commun.*, **SAC-1** (6), 963–980, Dec. 1983.
- [155] C J Weinstein, M L Malpass and M J Fisher. The traffic performance of an integrated circuit and packet switched multiplex structure. *IEEE Trans. Commun.*, **COM-28** (6), 873–878, June 1980.
- [156] S B Weinstein. Personalized services on the intelligent wideband network. In *Proc. IEEE Int. Zurich Seminar on Digital Commun.*, pages 13–18, March 1986.
- [157] P E White. The broadband ISDN — The next generation telecommunications network. In *Proc. IEEE Int. Conf. Commun. (ICC '86)*, pages 385–390, Toronto, June 1986.
- [158] C Wu and T Feng. On a class of multi-stage interconnection networks. *IEEE Trans. Computers*, **C-29** (8), 649–702, Aug. 1980.
- [159] L T Wu. Mixing traffic in a buffered banyan network. *Proc. 9th Data Commun. Symp.; ACM SIGCOM Computer Commun. Review*, **15** (4), 134–139, Sept. 1985.
- [160] L T Wu and N C Huang. Synchronous wideband network — an interoffice facility hubbing network. In *Proc. IEEE Int. Zurich Seminar on Digital Commun.*, pages 33–39, Mar. 1986.
- [161] L T Wu, S H Lee and T T Lee. Dynamic TDM — A packet approach to broadband networking. In *Proc. IEEE Int. Conf. Commun. (ICC '87)*, pages 1585–1592, Seattle, June 1987.
- [162] H Yamada et al. High-speed digital switching technology using space-division-switch LSI's. *IEEE J. Select. Areas in Commun.*, **SAC-4** (4), 529–535, July 1986.
- [163] Y S Yeh, M G Hluchyj and A S Acampora. The Knockout switch: A simple modular architecture for high-performance packet switching. *IEEE J. Select. Areas Commun.*, **SAC-5** (8), 1274–1283, Oct. 1987.