

## BOOK REVIEWS

### Internetworking LANs: Operation, Design, and Management

by Robert P. Davidson and Nathan J. Muller

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**Florin Paunescu** was born in Romania in 1945. He received his M.Sc. in Computer Science from the University of Bucharest in 1970 and his Ph.D in Computer Science from "Pierre et Marie Curie" University (Paris VI) in 1977. He was a Visiting Scientist at IMAG- "Laboratoire de Genie Informatique" Grenoble, France, for six months, starting with December 1991.

From March 1990 to June 1991 he was director of the Research Institute for Informatics in Bucharest. In June 1991 he promoted to be vice-president of National Commission of Informatics. Currently, he is the manager of Glossy S.A. in Bucharest. His managing activities cover R & D and Pilot Projects in Public Administration, Methodologies and Standards, Project Management: International Networks EARN, COSINE. He is a member of IEEE, Computer Society (IEEE), Engineering in Management (IEEE) Society, EARN. He has authored and co-authored more than 30 papers and 3 books. His main research interests are systems' architecture, networks, distributed systems and applications.

A book like an excellent tutorial could be the proper definition to be given to the volume written by Davidson and Muller. More than 500 pages successfully keeps the promise of placing readers in front of a panorama of technologies and services and products in the data transmission field. If readers' interest goes to how to design and commission various types of networks (point-to-point networks, connecting terminals and main powerful capacities, LAN, MAN and WAN), how to operate and manage them, they have just found their source.

The network interoperability, and the advanced technologies and products prevailing over the information systems to emerge within this context are also topics of debate.

Each of the 20 chapters of the book equally

contributes to formally defining the subject concerned (introduction, statement, conclusions) and to substantiating it.

Chapters 1, 2 through 5, 10, 11 and 16 are dedicated to specific services, to their design, operation and implementation in various products (protocols, transmission environments, interconnecting hardware and software), to standardization and back-up -orientation of point-to-point, LAN, MAN and WAN, for different application areas (any author's credibility is proved when not shunning from putting his subjects into contrastive light: successes and failures. These authors do the same with their subject).

Chapters 3 and 4 are concerned with distributed processing and system interoperability techniques. Attention is paid to architectural aspects (client, server, interaction) and to the implementation of the network operating systems (UNIX, OS/2).

Chapters 6 and 7 address the problem of LANs interoperability and the software implementing the concepts of addressing, routing, filtering, etc. as routers, bridges, gateways. Case studies on financial-banking systems interoperability are also presented in Chapter 7.

Chapters 8 and 9 include a comparative discussion of models and implementation associated with TCP/IP and OSI/ISO, respectively, with open systems' criteria at the core.

Chapter 12 proposes and presents SONET and FDDI standards for optical fibre as possible solutions to MAN implementation and LAN interconnecting.

Measurement and testing instruments and network management are reserved three other chapters (Chapter 13 and Chapters 14 through 15).

Network reliability and security problems (including data servers reliability and security) are discussed over three chapters (Chapters 17, 18, 19).

The last chapter of the book (Chapter 20) considers some technical and managerial problems, such as network planning, setting up and development. How to reach the optimum solution, how to manage costs and how to integrate, whenever required, a network with other

networks, are sharing the authors' consideration.

We are pleased to say that ARTECH HOUSE provided us a very interesting reading, and to recommend professionals and, why not, managers, trying to have it at hand.

**Florin Paunescu**