



IP Routing Protocols

By Uyless Black
Prentice Hall, 2000
ISBN 0-13-014248-4
287 pages, \$48.99

REVIEWED BY: ARMANDO NOLASCO PINTO

The TCP/IP protocol suite allows communication between computers of different sizes, produced by different vendors and run on different operating systems. What started in the late 1960s as a U.S. government-financed research project on packet switching networks has now become the most widely used form of networking, linking millions of computers worldwide. This amazing explosion of TCP/IP users, completely unexpected in the late 1960s, was substantially boosted in the 1990s with the Berners-Lee World Wide Web invention. However there are still some topics of TCP/IP that remains obscure. One of this aspects it is the routing problem. In that contest this book appears at just the right time.

Dr. Uyless Black is a widely known expert in computer networks and data communications. He is author of more than ten books in the communication technologies field, which puts him in a good position to address this topic. In this work he starts by providing the background and concepts required to understand TPC/IP technology. This is done clearly and assumes little prior knowledge of the area. As it will be expect he gives a strong emphasis to the introduction of IP route discovery problem.

Afterwards he presents with detail several routing protocols. He starts by the Routing Information Protocol (RIP), after he discusses the Open Shortest Path First (OSPF) protocol, the Border Gateway Protocol (BGP) and some CISCO routing protocols. This part of the book finish with the Private Network-Network Interface (PNNI) protocol analyzes. For each protocol Dr. Uyless Black gives a detailed technical description and also a brief historical context, which could be helpful for the reader to get the full picture. To give a full chapter to the CISCO routing protocols could be controversial, however in my opinion this is completely justified by the dominance that CISCO has actually in the internetworking business.

The work finished with a set of appendices, which could be useful in order to fulfill some background knowledge that is missing to the reader or that the reader wants to clarify.

If I have one criticism to make, it will be that, while the explanations are generally satisfactory some parts will deserve more detail. But this will be ever a problem when some one tries to address such a broad range of protocols in a single book.

Prof. Armando Nolasco Pinto, Institute of Telecommunications / University of Aveiro, Portugal. Tel: +351 234 377900 - Fax: +351 234 377901. E-mail: anp@det.ua.pt.