

<<网络协议>>

图书基本信息

书名：<<网络协议>>

13位ISBN编号：9787115087867

10位ISBN编号：7115087865

出版时间：2000-9

出版时间：人民邮电出版社

作者：Matthew G.Naagle

页数：953

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

<<网络协议>>

内容概要

网络经营者和管理人员需要具有自80年代初开发的有关LAN、WAN和Internet等所有协议的应用知识，这就需要手头有随时可供应用的大量的数据。

获得这些数据并不难，因为在这本大众化的、使用方便的参考手册中，包括了所需要的一切。用户喜爱这本手册是因为它实际上涵盖了各种网络协议的内容。

而更妙的是，它还提供了以下这些经过更新与扩充的内容：

- TCP/IP、ISDN、帧中继和PPP的最新发展
- 光纤数据分布式接口（FDDI）
- 快速以太网或100BaseT
- 吉比特以太网
- Novell NetWare,包括NetWare 4.X
- WAN协议，FR网络拓扑

除了指导实践的信息以外，本书还阐述了IPv6、资源预留协议（RSVP）和实时数据流传送协议（RTSP）以及令牌环、AppleTalk、XNS、DECnet、LAT和其他一些主要协议的基本知识。

本书是一部经典著作，同时在同系列书目中倍受赞赏，原因很简单：它是迄今在这个题目上写成的最好的一本参考书，是同类书中的佼佼者。

本书是献给广大读者的一部优秀作品。

<<网络协议>>

书籍目录

Chapter1 The Physical Layer
Introduction
Overview
The Open Systems Interconnect Model
Topologies
Star Topology
Ring Topology
Bus Topology
Wiring Systems for Ethernet,Token Ring,and FDDI
Thick Coaxial Cable
Thin Coaxial Cable
Unshielded Twisted Pair
Repeaters
The Physical Layer for Token Ring
Data Connectors
Multistation Access Unit
FDDI Overview and Physical Layer
FDDI and the OSI
FDDI Cable
Connectors
Port Types
FDDI Station Classes
FDDI Physical Layer Operations
FDDI station or Ring Breaks
FDDI Concentrators
FDDI Topologies
Chapter2 Ethernet,Token Ring,and FDDI
The DataLink Layer
Ethernet
Fast Ethernet
Gigabit Ethernet Physical Layer
Token Ring
FDDI
Addressing the Packet
Frame Identification(Ethernet)
Physical(MAC)Addressing
Bit-Order Transmission
Chapter3 Bridges,routers,and Basic Network Information
Introduction
Transparent Bridges
Introduction
Redundancy and the Spanning Tree Algorithm
Token Ring Bridges
Differences
Address Conversion

<<网络协议>>

Routers
Theory
Operation
Conclusion
Multiprotocol Routers
Translating Bridges
Gigabit Ethernet-The Need for Speed
Ethernet Technical Review
Starting Up Gigabit Ethernet
Gigabit Ethernet Transmission Methods
Products
Quality of Service
Chapter4 IEEE 802.2
Introduction
LLC Type 2 Operation
Connection-Oriented LLC2-Asynchronous Balance Mode
Frame Formats
Sequencing of Data
Timer Functions
Connection-Oriented Services of the IEEE 802.2 Protocol
Details of LLC Type 2 Operation
LLC2 Frame Reception
A Live Connection
LLC Type 1 Operation
Information transfer
XID
Test
SNAP
Chapter5 Xerox Network System
Introduction
Network Definition
Terminology and Definitions
Sockets and Routing
XNS at Level 0
Nonbroadcast or Point-to-Point
Host Numbers
Network Numbers
Socket numbers
Identifying the IDP Fields
Level 2
Routing Information Protocol
Level 2 Error Protocol
Level 2 Echo Protocol
Level 2 Sequence Packet Protocol
Level 2 Packet Exchange Protocol
Chapter6 Novell Netware
Introduction

<<网络协议>>

Version History

concepts

Internet Packet Exchange

IPX Routing Architecture:The Data Delivery System

IPX Routing Functions:Novell Routers

IPX Routing Information Protocol

Router Operation

The Service Advertising Protocol

SAP Operation

An Introduction to workgroup Client-Server Computing

Physical and virtual Drives

Printing Using a Server

The NetWare Interface

The Workstation

Connection Establishment

File Server Concepts

Server System Calls

NetWare Supplementals

Multiple NetWare Protocols

IntraNetWare

Packet Burst Mode Technology

NetWare Link Services Protocol

The DOS Requester and Associated VLMs

NetWare Directory Services

Time Services

Chapter7 An Introduction to TCP/IP

Introduction

History

The World Wide Web

Intranets and Extranets

Governing Bodies of the Internet

An Overall view of the Internet

TCP/IP Technical Documents

RFC Deatils

RFC Submission

RFC Updates

RFC Format

RFC Action Words

TCP/IP

The Internet Protocol

The Transport Layer Protocols

TCP/IP Applications

Chapter8 The Internet Protocol

Introduction

The Internet Protocol-Connectionless,Best-Effort Delivery Service

IP Header Fields

Version

<<网络协议>>

Header Length,Service Type,and Total Length
Fragmentation
Time to Live
Protocol and Checksum
IP Options
Source and Destination Address(IPv4)
Classful Addressing
IP Address Format
IP Class Identification
Subnetting
Reasons for Subnetting
Subnetting Examples(Class A,B,and C)
More Subnet Examples
Physical and Logical Addresses
Writing a Subnet Mask
Multinetting
Routers and Subnet Masks
Classful IP Address Review
Address Allocation(The Internet Registry)
Address Resolution Protocol
Reverse Address Resolution Protocol
Proxy ARP
Circuit and Packet Switching
Supernatural Acts for IP Addressing
Extending the IPv4 Address Space
IP Address Assignment(The Old Method)
Address Efficiencies:The Terms
Classless InterDomain Routing
Another Example:ISP Splice
Comparison between CIDR and VLSM
Zero and Ones Subnet
Internet Assigned Numbers Authority
Internet Control Message Protocol
ICMP Ping
More ICMP Functions
Chapter9 IP Routing
Introduction
Routing
Indirect Routing
The Routing Information Protocol(Version 1)
RIP Operational Types
RIP Field Descriptions
Default Routes
Disdvantages of the RIPv1 Protocol
RIP Version 2
Authentication
Subnet Mask Field

<<网络协议>>

Route Tag and Next Hop Fields
Multicast Support
Compatibility with RIPv1
Static versus Dynamic Routing
Remote Networks
Open Shortest Path First(RFC 2178)
OSPF Features
An OSPF Network
A Routing Protocol comparison
OSPF Overview
OSPF Network Support
Router types and Routing Methods
message Types
Metrics(Cost)
Generic Packet Format
The Hello Protocol
Adjacency
Maintaining the database
OSPF Areas
The Backbone Area
The Area Border Router
Virtual Link
Inter-Area Routing
Information from Other Autonomous Systems
Stub Areas
RFCs Related to OSPF
Datagram Routing
Chapter10 IPv6
Introduction
IPv6 Main Points
IPv6 Proposals
IPv6 header Format
IPv4 Options Review
IPv6 Extension Headers
Sizes and Fragments
Header Differences
Priority and flow Label
IPv6 Addressing
Methods of deploying IPv6
Unicast Addresses
Local-Use IPv6 Addressing
IPv6 Addresses with Embedded IPv4 Addresses
Autoconfiguration
Neighbor Discovery
IPv6 Tunneling
Anycast Addressing
Multicasting

<<网络协议>>

IPv6 Routing
RIPv6
ICMP for IPv6
ICMPv6 and ICMPv4
IPv6 Cache Entries
IPv6 Algorithm
Address Resolution
RFCs Related to IPv6
Chapter11 User Datagram Protocol
Introduction
UDP Multiplexing and Demultiplexing
Port Numbers
Assigned,Registered,and Dynamic Port Numbers
Dynamic Port Numbers
Transmission Control Protocol
TCP Details
TCP Field Definitions
TCP Services
TCP Connection Establishment
TCP Three-Way Handshake
TCP Segment
Sequence Numbers and Acknowledgments
TCP Flow and Window Management
TCP Retransmission
Slow Start and Congestion Avoidance
Differentiating Connections through Port Numbers
Termination
Real-Time Protocol and the Real-Time Control Protocol
Translators
Mixers
Support for Time-Sensitive Applications
Payload Type
The RTP Header Fields
Providing Control for RTP
Sender and Receiver Reports
Receiver Reports
Source Description Packet
Bye Packet
Application-Specific Messages
Caveats
RFCs and Web Sources
Chapter12 Selected TCP/IP Applications
Introduction
Telnet
Telnet Options
File Transfer Protocol
FTP Commands

<<网络协议>>

FTP Data Transfer
Trivial File Transfer Program
Domain Name Service
DNS Structure
DNS Components
DNS Structure
Name Servers
Query Function Types
Example DNS Database
Playing With the Database
WHOIS Command
More DNS Information
Simple Mail Transfer Protocol
SMTP Functions
SMTP Flow
DNS Interaction for Mail
Post Office Protocol
POP Operation
Chapter13 IP Multicast
Introduction
Multicast Components
Multicast Caveats
Unicast(versus Multicast)
Multicasting Types
Addressing Type Review
Introduction to IP Multicast
Extensions to the IP Service Interface
Receiving Multicast Datagrams
Address Format
Mapping to an Ethernet or IEEE 802 MAC Address
Protocols
IGMP Header
Router Functions of IGMP
Host Join
Multicast Algorithms
Leaves,Branches,and the Root
Spanning Tree and Flooding
Reverse Path Broadcasting
Truncated RPB and Reverse Path Multicasting
Core-Based Trees
Distance Vector Multicast Routing Protocol
DVMRP and IGMP
Neighbor Discovery
Route Reports
DVMRP Tables
Pruning and Grafting
Tunneling

<<网络协议>>

Protocol-Independent Multicast
PIM Dense Mode
Protocol Operation
Adding Interfaces
PIM Sparse Mode
Types of Multicast Trees
Joining a Group
Sending Data Using PIM Sparse Mode
Rendezvous Points
Comparison of Sparse-Mode and Dense-Mode Protocols
Multicast Open Shortest Path First
MOSPF Differences
OSPF Caveats
Local Group Database and the Group-Membership LSA
Role of the DR and the BDR
Local group Database
Operation
Forwarding Cache
Inter-Area MOSPF Routing
Inter-Autonomous system Multicast
Multicast Conclusion
RFCs to Be Reviewed
WEB Sites
Chapter14 Other TCP/IP Protocols
Boot Protocol
BOOTP Operation
Client Side(TOOTREQUEST)
Server Side
Chicken or the Egg?
BOOTP Relay Agents (or BOOTP Gateway)
Dynamic Host configuration Protocol
IP Address Allocation
DHCP Messages
DHCP Responses
DHCP Shortcuts
Lease Duration
Efficiencies
Resources Reservation Protocol
Alternatives
RSVP Operation
RSVP Control
Disabling Reservations and Handling Errors
Merging Flow Specs
A Simple Example
RSVP Issues
RSVP Summary
Conclusion

<<网络协议>>

Simple Network Management Protocol
SNMP Manager
Agents
Management Information Base
The Protocol of SNMP
Chapter15 AppleTalk
The Physical Layer-AppleTalk Hardware
LocalTalk
Media Considerations for AppleTalk
Data-Link Functions
The Control Panel
Link Access Protocol manager for LocalTalk
The AppleTalk Address Resolution Protocol
LAP Manager for EtherTalk and TokenTalk
The AppleTalk Network Layer:End-to-End Data Flow
Datagram Delivery Protocol
Routers, Routing, Tables and Maintenance
AppleTalk Echo Protocol
Names on AppleTalk
Transport Layer Services
Reliable Delivery of Data
AppleTalk Transaction Protocol
Printer Access Protocol
AppleTalk Session Protocol
AppleShare and the AppleTalk filing Protocol
Chapter16 Digital Network Architecture
Introduction
History
The Routing Layer
Definitions
Functions of DECnet Routing
Addressing
Areas
The Routing Database
Declarations
Forwarding of Packets
Routing the Data
Forwarding of Data in a DECnet Environment
Endnode Packet Delivery
End Communication Layer:The DNA Transport Layer
Flow Control
The Session Control Layer
Network Application Layer
Data Access Protocol
Network Virtual Terminal
Other Layers
Chapter17 Local Area Transport

<<网络协议>>

Introduction
Node Types on LAT LANs
LAT Topology
Service Class Layer
Slot Layer
Virtual Circuit Layer
LAT Components
Serices
The Service-Announcement Process
Groups
Session Establishment
Data Transfer
Session Flow Control
Slot Flow Control
Session Termination
Other LAT Services
Host-Initated Requests
Session Management
Virtual Circuit Maintenacne
Connection Queue maintenance
Chapter18 Point-Point Protocol
Introduction
Details of PPP
PPP Encapsulation
PPP Operation
Link control Protocol
authentication
Multilink PPP
Chapter19 Frame Relay
Introduction
Definitions
Address Resolution
Circuits
Committed Information Rate
Congestion Control
Multicast Data
Frame Relay Management
LMI Protocols
Frame Relay Topologies
Frame Relay and IP
Frame Relay and IPX
Other Tuning Suggestions for Frame Relay Installations
RFC 1490:Multiprotocol Interconnect over Frame Relay
Configuration Challenges
Alternative Frame Relay Implementations
Chapter20 ISDN by Gary C.Kessler and Peter V.Southwick
Communications Basics

<<网络协议>>

Analog and Digital Signals
Amplifiers and Repeaters
Structure of the Telephone Network
Passband and Bandwidth
The Telephone Local Loop
Multiplexing
Digital Telephony
The Move to a Digital Telephone Network
Digitizing Voice and Pulse Code Modulation
The Digital-TDM Hierarchy
Digital Signals on the Local Loop
full-Duplex Communication on the Local Loop
Types of Switched Networks
Circuit Switching
Packet Switching
Fast Packet Technologies
Open Systems Interconnection Reference Model
OSI Layers
Packet Switching and X.25
Protocol Architectures
ISDN Channels
The D-Channel
The B-Channel
H-Channels
Access Interfaces
Basic Rate Interface
Primary Rate Interface
Primary Rate Interface
Functional Devices and Reference Points
ISDN Functional Devices
ISDN Reference Points
B-ISDN Channels, Functional Devices, and Reference Points
Standards and Organizations
The ITU-T
The American National Standards Institute
Bellcore
The European Telecommunications Standards Institute
Other Standards Organizations
Industry Consortia
Summary
References
Index

<<网络协议>>

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>