

Document #
42505-1
1 of 1

Name	Order ID	Order Date	Client Reference   Billing Number	Service
Lisa MacDonald	42505	05.17.2017 5:35 am	309101-2130-12110	ASAP Order

Document Details						
Source: Computer network	king essentials					
<u>Volume</u> :						
<u>lssue</u> :						
<u>Date</u> : 2001						
<u>Pages</u> :						
<u>Author</u> : Shinder, Debra Littlejohn						
<u>Title</u> :						
Order Options						
☑ Title Page if Available	<b>☑</b> Datestamp	☐ English Only				
☑ Table of Contents if Available	☐ Color if Available	□ Extra Clean				
Copyright Page if Available	☐ Hardcopy Only	☐ Include Suppl. Material if Available				
	•					

#### **COPYRIGHT**

- Documents Delivered is a member of the Copyright Clearance Center and adheres to copyright law.
- For more information please visit: www.documentsdelivered.com/copyright-policy/







### Computer Networking Essentials

Debra Littlejohn Shinder



Cisco Press 201 West 103rd Street Indianapolis, IN 46290 USA



### **Computer Networking Essentials**

Debra Littlejohn Shinder

Copyright © 2001 Cisco Systems, Inc.

Cisco Press logo is a trademark of Cisco Systems, Inc.

Published by:

Cisco Press

201 West 103rd Street

Indianapolis, IN 46290 USA

All rights reserved. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without written permission from the publisher, except for the inclusion of brief quotations in a review.

Printed in the United States of America 1 2 3 4 5 6 7 8 9 0

Library of Congress Cataloging-in-Publication Number: 2001090429

ISBN: 1-58713-038-6

### **Trademark Acknowledgments**

All terms mentioned in this book that are known to be trademarks or service marks have been appropriately capitalized. Cisco Press or Cisco Systems, Inc., cannot attest to the accuracy of this information. Use of a term in this book should not be regarded as affecting the validity of any trademark or service mark.

### Warning and Disclaimer

This book is designed to provide information about basic networking and operating system technologies. Every effort has been made to make this book as complete and as accurate as possible, but no warranty or fitness is implied.

The information is provided on an "as is" basis. The author, Cisco Press, and Cisco Systems, Inc., shall have neither liability nor responsibility to any person or entity with respect to any loss or damages arising from the information contained in this book or from the use of the discs or programs that may accompany it.

The opinions expressed in this book belong to the author and are not necessarily those of Cisco Systems, Inc.





### Contents

Part I	Introduction to Networking Concepts 3				
Chapter 1	Introduction to PC Networking 5				
	A Brief History of PC Networking 5 The First Communications Networks 6 Disadvantages of Standalone Systems 10 What Is a Network, Anyway? 11 Why Network Computers? 11 Benefits of Getting Connected 12 The Birth of the Internet 13 The Cost of Technology: More and More for Less and Less				
	PC Networking Today 16 Home Computing 16 Web Presence and E-commerce 16 High-Performance Business Solutions 16 Online Learning 17				
	Tomorrow's Networks 17 "Smart" Appliances and Homes 17 Phoning Home 18 The Wired Workplace 19 Schools of the Future 20 Networking Health Care 20 Technology and the Law 21 Intergalactic Networking? 21				
	A Brief Overview of Networking Terminology 21 Concept-Related Terminology 22 Network Hardware-Related Terminology 22 Software-Related Terminology 23 Design and Topology Terminology 24 Measurement-Related Terminology 24				
	What This Book Covers and What It Doesn't 25				
	Networking Certifications 26 Vendor-Specific Certifications 26 Non-Vendor-Specific Certifications 26 This Book and Certification 27				



Summary 27

Further Reading 28

Review Questions 28

### Chapter 2 Categorizing Networks 33

Categorizing Networks by Physical Scope 33

Characteristics of a LAN 34

Characteristics of a MAN 35

Characteristics of a WAN 37

Categorizing Networks by Administrative Method 38

Servers and Clients 39

Characteristics of Peer-to-Peer Networks 44

Characteristics of Server-Based Networks 47

Categorizing Networks by NOS 49

Windows Networks 50

NetWare Networks 50

UNIX Networks 50

Hybrid Networks 51

Categorizing Networks by Protocol 52

NetBEUI Networks 52

IPX/SPX Networks 52

TCP/IP Networks 53

Other LAN Protocols Used in Networks 53

Categorizing Networks by Topology 54

Linear Bus Networks 55

Ring Networks 56

Star Bus Networks 57

Mesh Networks 59

Hybrid Topologies 60

Categorizing Networks by Architecture 61

Ethernet Networks 62

Token Ring Networks 67

AppleTalk Networks 68

ARCnet Networks 68

Summary 70

Further Reading 70

Review Questions 71



# DOCKET

## Explore Litigation Insights



Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

### **Real-Time Litigation Alerts**



Keep your litigation team up-to-date with **real-time** alerts and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

### **Advanced Docket Research**



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

### **Analytics At Your Fingertips**



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

### API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

### **LAW FIRMS**

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

### **FINANCIAL INSTITUTIONS**

Litigation and bankruptcy checks for companies and debtors.

### **E-DISCOVERY AND LEGAL VENDORS**

Sync your system to PACER to automate legal marketing.

