

# UNIX Network Programming Vol 1: Networking APIs Sockets And XTI

The Unix model; Interprocess communication; A network primer; Communication protocols; Berkeley sockets; System V transport layer interface; Library routines; Security; Time and date routines; Ping routines; Trivial file transfer protocol; Line printer spoolers; Remote command execution; Remote login; Remote tape drive access; Performance; Remote procedure calls.

Software -- Operating Systems.

UNIX Network Programming, Volume 1: The Sockets Networking API, Third Edition "Everyone will want this book because it provides a great mix of practical experience, historical perspective, and a depth of understanding that only comes from being intimately involved in the field. I've already enjoyed and learned from reading this book, and surely you will too." --Sam Leffler The classic guide to UNIX networking APIs... now completely updated! To build today's highly distributed, networked applications and services, you need deep mastery of sockets and other key networking APIs. One book delivers comprehensive, start-to-finish guidance for building robust, high-performance networked systems in any environment: UNIX Network Programming, Volume

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1, Third Edition. Building on the legendary work of W. Richard Stevens, this edition has been fully updated by two leading network programming experts to address today's most crucial standards, implementations, and techniques. New topics include: POSIX Single UNIX Specification Version 3 IPv6 APIs (including updated guidance on IPv6/IPv4 interoperability) The new SCTP transport protocol IPsec-based Key Management Sockets FreeBSD 4.8/5.1, Red Hat Linux 9.x, Solaris 9, AIX 5.x, HP-UX, and Mac OS X implementations New network program debugging techniques Source Specific Multicast API, the key enabler for widespread IP multicast deployment The authors also update and extend Stevens' definitive coverage of these crucial UNIX networking standards and techniques: TCP and UDP transport Sockets: elementary, advanced, routed, and raw I/O: multiplexing, advanced functions, nonblocking, and signal-driven Daemons and inetd UNIX domain protocols ioctl operations Broadcasting and multicasting Threads Streams Design: TCP iterative, concurrent, preforked, and prethreaded servers Since 1990, network programmers have turned to one source for the insights and techniques they need: W. Richard Stevens' UNIX Network Programming . Now, there's an edition specifically designed for today's challenges--and tomorrow's.

"Large-scale enterprise, cloud, and virtualized

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computing systems have introduced serious performance challenges. Now, internationally renowned performance expert Brendan Gregg has brought together proven methodologies, tools, and metrics for analyzing and tuning even the most complex environments. *Systems Performance: Enterprise and the Cloud* focuses on Linux® and Unix® performance, while illuminating performance issues that are relevant to all operating systems. You'll gain deep insight into how systems work and perform, and learn methodologies for analyzing and improving system and application performance. Gregg presents examples from bare-metal systems and virtualized cloud tenants running Linux-based Ubuntu®, Fedora®, CentOS, and the illumos-based Joyent® SmartOSTM and OmniTI OmniOS®. He systematically covers modern systems performance, including the "traditional" analysis of CPUs, memory, disks, and networks, and new areas including cloud computing and dynamic tracing. This book also helps you identify and fix the "unknown unknowns" of complex performance: bottlenecks that emerge from elements and interactions you were not aware of. The text concludes with a detailed case study, showing how a real cloud customer issue was analyzed from start to finish."--Back cover.

UNIX System Programming Using C++

TCP/IP Illustrated, Volume 1

Systems Performance

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Advanced UNIX Programming

The TCP/IP Guide

UNIX System V Network Programming

"Linux Socket Programming" provides thorough, authoritative coverage of the sockets API, the defacto standard for all network programming. It gives real-world examples that demonstrate effective techniques to make code more robust and versatile. This book contains the only complete reference for all calls and functions needed to program sockets.

Here is a programmer's guide to using and programming POSIX threads, commonly known as Pthreads. A "coder's book", this title tells how to use Pthreads in the real world, making efficient and portable applications. Pthreads are an important set of current tools programmers need to have in today's network-intensive climate.

Well-implemented interprocess communications (IPC) are key to the performance of virtually every non-trivial UNIX program. In UNIX Network Programming, Volume 2, Second Edition, legendary UNIX expert W. Richard Stevens presents a comprehensive guide to every form of IPC, including message passing, synchronization, shared memory, and Remote Procedure Calls (RPC). Stevens begins with a basic introduction to IPC and the problems it is intended to solve. Step-by-step you'll learn how to maximize both System V IPC and the new Posix standards, which offer dramatic improvements in convenience and performance.

BPF and related observability tools give software

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professionals unprecedented visibility into software, helping them analyze operating system and application performance, troubleshoot code, and strengthen security. BPF

Performance Tools: Linux System and Application

Observability is the industry ' s most comprehensive guide to using these tools for observability. Brendan Gregg, author of the industry ' s definitive guide to system performance, introduces powerful new methods and tools for doing analysis that leads to more robust, reliable, and safer code.

This authoritative guide: Explores a wide spectrum of software and hardware targets Thoroughly covers open source BPF tools from the Linux Foundation iovisor project ' s bcc and bpftrace repositories Summarizes performance engineering and kernel internals you need to understand Provides and discusses 150+ bpftrace tools, including 80 written specifically for this book: tools you can run as-is, without programming — or customize and develop further, using diverse interfaces and the bpftrace front-end You ' ll learn how to use BPF (eBPF) tracing tools to analyze CPUs, memory, disks, file systems, networking, languages, applications, containers, hypervisors, security, and the Linux kernel. You ' ll move from basic to advanced tools and techniques, producing new metrics, stack traces, custom latency histograms, and more. It ' s like having a superpower: with Gregg ' s guidance and tools, you can analyze virtually everything that impacts system performance, so you can improve virtually any Linux operating system or application.

ABCs of z/OS System Programming:

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44 Tips to Improve Your Network Programs

How to Think Like a Computer Scientist

Unix Network Programming Volume 1: the Sockets

Networking API

Programming with POSIX Threads

UNIX Network Programming

*“For an engineer determined to refine and secure Internet operation or to explore alternative solutions to persistent problems, the insights provided by this book will be invaluable.” —Vint Cerf, Internet pioneer*

*TCP/IP Illustrated, Volume 1, Second Edition, is a detailed and visual guide to today’s TCP/IP protocol suite. Fully updated for the newest innovations, it demonstrates each protocol in action through realistic examples from modern Linux, Windows, and Mac OS environments. There’s no better way to discover why TCP/IP works as it does, how it reacts to common conditions, and how to apply it in your own applications and networks. Building on the late W. Richard Stevens’ classic first edition, author Kevin R. Fall adds his cutting-edge experience as a leader in TCP/IP protocol research, updating the book to fully reflect the latest protocols and best practices. He first introduces TCP/IP’s core goals and architectural concepts, showing how they can robustly connect*

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*diverse networks and support multiple services running concurrently. Next, he carefully explains Internet addressing in both IPv4 and IPv6 networks. Then, he walks through TCP/IP's structure and function from the bottom up: from link layer protocols—such as Ethernet and Wi-Fi—through network, transport, and application layers. Fall thoroughly introduces ARP, DHCP, NAT, firewalls, ICMPv4/ICMPv6, broadcasting, multicasting, UDP, DNS, and much more. He offers extensive coverage of reliable transport and TCP, including connection management, timeout, retransmission, interactive data flow, and congestion control. Finally, he introduces the basics of security and cryptography, and illuminates the crucial modern protocols for protecting security and privacy, including EAP, IPsec, TLS, DNSSEC, and DKIM. Whatever your TCP/IP experience, this book will help you gain a deeper, more intuitive understanding of the entire protocol suite so you can build better applications and run more reliable, efficient networks.*

*Apply business requirements to IT infrastructure and deliver a high-quality product by understanding architectures such as microservices, DevOps, and cloud-native using modern C++ standards and features*

*Key Features* Design scalable large-scale applications with the C++ programming language Architect software solutions in a cloud-based environment with continuous integration and continuous delivery (CI/CD) Achieve architectural goals by leveraging design patterns, language features, and useful tools

*Book Description* Software architecture refers to the high-level design of complex applications. It is evolving just like the languages we use, but there are architectural concepts and patterns that you can learn to write high-performance apps in a high-level language without sacrificing readability and maintainability. If you're working with modern C++, this practical guide will help you put your knowledge to work and design distributed, large-scale apps. You'll start by getting up to speed with architectural concepts, including established patterns and rising trends, then move on to understanding what software architecture actually is and start exploring its components. Next, you'll discover the design concepts involved in application architecture and the patterns in software development, before going on to learn how to build, package, integrate, and deploy your components. In the concluding chapters, you'll explore different

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*architectural qualities, such as maintainability, reusability, testability, performance, scalability, and security. Finally, you will get an overview of distributed systems, such as service-oriented architecture, microservices, and cloud-native, and understand how to apply them in application development. By the end of this book, you'll be able to build distributed services using modern C++ and associated tools to deliver solutions as per your clients' requirements. What you will learn*

*Understand how to apply the principles of software architecture*

*Apply design patterns and best practices to meet your architectural goals*

*Write elegant, safe, and performant code using the latest C++ features*

*Build applications that are easy to maintain and deploy*

*Explore the different architectural approaches and learn to apply them as per your requirement*

*Simplify development and operations using application containers*

*Discover various techniques to solve common problems in software design and development*

*Who this book is for*

*This software architecture C++ programming book is for experienced C++ developers looking to become software architects or develop enterprise-grade applications.*

*Completely updated for Windows Vista and*

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*Windows Server 2003 R2, this book is packed with practical examples for today's programmer, Web developer, or system administrator Combines a comprehensive overview of the VBScript technology and associated technologies with sample code at every stage from beginner to advanced user Discusses the general syntax, functions, keywords, style, error handling, and similar language-specific topics and then moves into an expanded reference section covering the object models in detail Presents advanced coverage on Active Directory Service Interfaces (ADSI), PowerShell, security scripting, remote scripting, database scripting, and more*

*If you want to learn how to program, working with Python is an excellent way to start. This hands-on guide takes you through the language a step at a time, beginning with basic programming concepts before moving on to functions, recursion, data structures, and object-oriented design. This second edition and its supporting code have been updated for Python 3. Through exercises in each chapter, you'll try out programming concepts as you learn them. Think Python is ideal for students at the high school or college level, as well as self-learners, home-schooled*

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*students, and professionals who need to learn programming basics. Beginners just getting their feet wet will learn how to start with Python in a browser. Start with the basics, including language syntax and semantics Get a clear definition of each programming concept Learn about values, variables, statements, functions, and data structures in a logical progression Discover how to work with files and databases Understand objects, methods, and object-oriented programming Use debugging techniques to fix syntax, runtime, and semantic errors Explore interface design, data structures, and GUI-based programs through case studies Software Architecture with C++ C++ Network Programming, Volume 2 Using Internet Sockets International Edition Think Python*

*The Fourth Edition of Unix Shell Programming*

The classic guide to UNIX® programming-completely updated! UNIX application programming requires a mastery of system-level services. Making sense of the many functions-more than 1,100 functions in the current UNIX specification-is a daunting task, so for years programmers have turned to Advanced UNIX Programming for its clear, expert advice on how to use the key functions reliably. An enormous number of changes

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have taken place in the UNIX environment since the landmark first edition. In *Advanced UNIX Programming, Second Edition*, UNIX pioneer Marc J. Rochkind brings the book fully up to date, with all-new, comprehensive coverage including: POSIX Solaris™ Linux® FreeBSD Darwin, the Mac™ OS X kernel And more than 200 new system calls Rochkind's fully updated classic explains all the UNIX system calls you're likely to need, all in a single volume! Interprocess communication, networking (sockets), pseudo terminals, asynchronous I/O, advanced signals, realtime, and threads Covers the system calls you'll actually use-no need to plow through hundreds of improperly implemented, obsolete, and otherwise unnecessary system calls! Thousands of lines of example code include a Web browser and server, a keystroke recorder/player, and a shell complete with pipelines, redirection, and background processes Emphasis on the practical-ensuring portability, avoiding pitfalls, and much more! Since 1985, the one book to have for mastering UNIX application programming has been Rochkind's *Advanced UNIX Programming*. Now completely updated, the second edition remains the choice for up-to-the-minute, in-depth coverage of the essential system-level services of the UNIX family of operating systems. Learn to write advanced C programs that are strongly type-checked, compact, and easy to maintain. This book focuses on real-life applications and problem solving in networking, database development, compilers, operating systems, and CAD.

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TCP/IP Illustrated, Volume 1, Second Edition, is a detailed and visual guide to today's TCP/IP protocol suite. Fully updated for the newest innovations, it demonstrates each protocol in action through realistic examples from modern Linux, Windows, and Mac OS environments. There's no better way to discover why TCP/IP works as it does, how it reacts to common conditions, and how to apply it in your own applications and networks. Building on the late W. Richard Stevens' classic first edition, author Kevin R. Fall adds his cutting-edge experience as a leader in TCP/IP protocol research, updating the book to fully reflect the latest protocols and best practices.

Unix Shell Programming is a tutorial aimed at helping Unix and Linux users get optimal performance out of their operating out of their operating system. It shows them how to take control of their systems and work efficiently by harnessing the power of the shell to solve common problems. The reader learns everything he or she needs to know to customize the way a Unix system responds. The vast majority of Unix users utilize the Korn shell or some variant of the Bourne shell, such as bash. Three are covered in the third edition of Unix Shell Programming. It begins with a generalized tutorial of Unix and tools and then moves into detailed coverage of shell programming. Topics covered include: regular expressions, the kernel and the utilities, command files, parameters, manipulating text filters, understanding and debugging shell scripts, creating and utilizing variables, tools, processes, and customizing the shell.

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Unix Network Programming The Sockets And  
Networking Api Vol. 1 3Rd Ed.

UNIX Network Programming: The sockets networking  
API

Hacker's Delight

C++ Network Programming, Volume I

Systematic Reuse with ACE and Frameworks

ABCs of IBM z/OS System Programming

This IBM® Redbooks® publication describes the functions of z/OS® Communications Server. z/OS Communications Server provides a set of communications protocols that support peer-to-peer connectivity functions for both local and wide-area networks, including the most popular wide-area network, the Internet. z/OS Communications Server also provides performance enhancements that can benefit a variety of TCP/IP applications. z/OS Communications Server provides both SNA and TCP/IP networking protocols for z/OS. The SNA protocols are provided by VTAM® and include Subarea, Advanced Peer-to-Peer Networking, and High Performance Routing protocols. z/OS Communications Server exploits z/OS UNIX® services even for traditional MVSTM environments and applications. Prior to utilizing TCP/IP services, therefore, a full-function mode z/OS UNIX environment including a Data Facility Storage Management Subsystem (DFSMSdfp), a z/OS UNIX file system, and a security product (such as Resource Access Control Facility, or RACF®) must be defined and active before z/OS Communications Server can be started successfully. The ABCs of z/OS System Programming is a

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13-volume collection that provides an introduction to the z/OS operating system and the hardware architecture. Whether you are a beginner or an experienced system programmer, the ABCs collection provides the information that you need to start your research into z/OS and related subjects. If you want to become more familiar with z/OS in your current environment, or if you are evaluating platforms to consolidate your e-business applications, the ABCs collection will serve as a powerful technical tool. The contents of the volumes are as follows: Volume 1: Introduction to z/OS and storage concepts, TSO/E, ISPF, JCL, SDSF, and z/OS delivery and installation Volume 2: z/OS implementation and daily maintenance, defining subsystems, JES2 and JES3, LPA, LNKLST, authorized libraries, SMP/E, Language Environment® Volume 3: Introduction to DFSMS, data set basics storage management hardware and software, catalogs, and DFSMSStvs Volume 4: Communication Server, TCP/IP, and VTAM Volume 5: Base and Parallel Sysplex®, System Logger, Resource Recovery Services (RRS), global resource serialization (GRS), z/OS system operations, automatic restart management (ARM), Geographically Dispersed Parallel Sysplex™ (GDPS®) Volume 6: Introduction to security, RACF, Digital certificates and PKI, Kerberos, cryptography and z990 integrated cryptography, zSeries® firewall technologies, LDAP, and Enterprise identity mapping (EIM) Volume 7: Printing in a z/OS environment, Infoprint Server and Infoprint Central Volume 8: An introduction to z/OS problem diagnosis Volume 9: z/OS UNIX System Services Volume 10: Introduction to z/Architecture®, zSeries

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processor design, zSeries connectivity, LPAR concepts, HCD, and HMC Volume 11: Capacity planning, performance management, RMFTM, and SMF Volume 12: WLM Volume 13: JES3

A practical book that explains many of the details that have been considered a mystery, this guidebook focuses on the design, development, and coding of networking software under the UNIX operating system. It begins by showing how a fundamental basic for networking programming is interprocess communication (IPC), and a requisite for understanding IPC is a knowledge of what constitutes a process. Throughout, the text provides both a description and examples of how and why a particular solution is arrived at.

UNIX Network Programming

V.1 Networking APIs: sockets and XTI V.2 Interprocess communications.

TCP for Transactions, HTTP, NNTP, and the UNIX Domain Protocols (paperback)

Communication, Concurrency, and Threads

BPF Performance Tools

The Protocols

TCP/IP Illustrated

Hands-On Network Programming with C

Increasingly, robots are being used in environments inhospitable humans such as the deep ocean, inside nuclear reactors, and in deep space. The techniques used to control these robots are the subject of this book. The author begins with a basic introduction to robot control and covers topics such as teleprompting, operator interfaces, visual imagery, and command generation. Additionally, problematic issues are addressed, including noisy control lines, feedback and response information, and predictive displays.

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## Vol 1: Networking APIs Sockets And XTI

Do you need to develop flexible software that can be customized quickly? Do you need to add the power and efficiency of frameworks to your software? The ADAPTIVE Communication Environment (ACE) is an open-source toolkit for building high-performance networked applications and next-generation middleware. ACE's power and flexibility arise from object-oriented frameworks, used to achieve the systematic reuse of networked application software. ACE frameworks handle common network programming tasks and can be customized using C++ language features to produce complete distributed applications. C++ Network Programming, Volume 2, focuses on ACE frameworks, providing thorough coverage of the concepts, patterns, and usage rules that form their structure. This book is a practical guide to designing object-oriented frameworks and shows developers how to apply frameworks to concurrent networked applications. C++ Networking, Volume 1, introduced ACE and the wrapper facades which are basic network computing ingredients. Volume 2 explains how frameworks build on wrapper facades to provide higher-level communication services. Written by two experts in the ACE community, this book contains: An overview of ACE frameworks Design dimensions for networked services Descriptions of the key capabilities of the most important ACE frameworks Numerous C++ code examples that demonstrate how to use ACE frameworks C++ Network Programming, Volume 2, teaches how to use frameworks to write networked applications quickly, reducing development effort and overhead. It will be an invaluable asset to any C++ developer working on networked applications.

Back in the mid 90s, Beej got tired of all his friends asking him to do this stuff with networking programming in C, so he put pen to paper on the early World Wide Web and wrote down everything he knew just to get them off his back. Since then, the Guide has expanded significantly, with plenty of examples, and covers IPv6. Inside you'll find such diverse topics as: Sockets programming in the C programming language, client/server, IPv4 and IPv6, data

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encoding, lots of manual pages rewritten in a friendlier format v examples, and goats! Actually no goats, but goats will be with y in spirit! Beej's Guide to Network Programming is also freely available for PDF download online in US Letter and A4 sizes, in i entirety, and always will be--Google for it. The bound version he is provided as a service to those who still prefer the analog pri word. (And to those who want to kick back a few bucks to the author.)

The revision of the definitive guide to Unix system programming now available in a more portable format.

Effective TCP/IP Programming

Linux Socket Programming by Example

Design modern systems using effective architecture concepts, design patterns, and techniques with C++20

UNIX Network Programming: Interprocess communications

Network Programming with Perl

UNIX Systems Programming

***Compiles programming hacks intended to help computer programmers build more efficient software, in an updated edition that covers cyclic redundancy checking and new algorithms and that includes exercises with answers.***

***From Charles M. Kozierok, the creator of the highly regarded [www.pcguides.com](http://www.pcguides.com), comes The TCP/IP Guide. This completely up-to-date, encyclopedic reference on the TCP/IP protocol suite will appeal to newcomers and the seasoned professional alike. Kozierok details the core protocols that make TCP/IP internetworks function and the most important classic TCP/IP applications, integrating IPv6 coverage throughout. Over 350 illustrations and hundreds of tables help to explain the***

*finer points of this complex topic. The book's personal, user-friendly writing style lets readers of all levels understand the dozens of protocols and technologies that run the Internet, with full coverage of PPP, ARP, IP, IPv6, IP NAT, IPSec, Mobile IP, ICMP, RIP, BGP, TCP, UDP, DNS, DHCP, SNMP, FTP, SMTP, NNTP, HTTP, Telnet, and much more. The TCP/IP Guide is a must-have addition to the libraries of internetworking students, educators, networking professionals, and those working toward certification.*

*As networks, devices, and systems continue to evolve, software engineers face the unique challenge of creating reliable distributed applications within frequently changing environments. C++ Network Programming, Volume 1, provides practical solutions for developing and optimizing complex distributed systems using the ADAPTIVE Communication Environment (ACE), a revolutionary open-source framework that runs on dozens of hardware platforms and operating systems. This book guides software professionals through the traps and pitfalls of developing efficient, portable, and flexible networked applications. It explores the inherent design complexities of concurrent networked applications and the tradeoffs that must be considered when working to master them. C++ Network Programming begins with an overview of the issues and tools involved in writing distributed concurrent applications. The book then provides the essential design dimensions, patterns, and principles needed to develop*

*flexible and efficient concurrent networked applications. The book's expert author team shows you how to enhance design skills while applying C++ and patterns effectively to develop object-oriented networked applications. Readers will find coverage of: C++ network programming, including an overview and strategies for addressing common development challenges The ACE Toolkit Connection protocols, message exchange, and message-passing versus shared memory Implementation methods for reusable networked application services Concurrency in object-oriented network programming Design principles and patterns for ACE wrapper facades With this book, C++ developers have at their disposal the most complete toolkit available for developing successful, multiplatform, concurrent networked applications with ease and efficiency.*

*To build today's highly distributed, networked applications and services, you need deep mastery of sockets and other key networking APIs. One book delivers comprehensive, start-to-finish guidance for building robust, high-performance networked systems in any environment: UNIX Network Programming, Volume 1, Third Edition.*

*Enterprise and the Cloud*

*A Comprehensive, Illustrated Internet Protocols Reference*

*Development, Deployment & Maintenance*

*Mastering Complexity with ACE and Patterns, Portable Documents*

***UNIX Network Programming: Vol. 1: The Sockets  
Networking API.***

***UNIX Network Programming, Volume 2***

*Don't miss this guide to building networked and distributed applications for UNIX® System V. Using many helpful examples, the author provides a solid introduction to networking and UNIX programming, plus information on the programming interfaces most important to building communication software in System V, such as STREAMS, the Transport Layer Interface library, Sockets, and Remote Procedure Calls. The book also explains how to write kernel-level communication software, including STREAMS drivers, modules, and multiplexors. A final chapter on SLIP is essential reading.*

*The ABCs of IBM® z/OS® System Programming is a 13-volume collection that provides an introduction to the z/OS operating system and the hardware architecture. Whether you are a beginner or an experienced system programmer, the ABCs collection provides the information that you need to start your research into z/OS and related subjects. Whether you want to become more familiar with z/OS in your current environment, or you are evaluating platforms to consolidate your online business applications, the ABCs collection will serve as a powerful technical tool. Volume 1 provides an updated understanding of the software and IBM zSeries architecture, and explains how it is used together with the z/OS operating system. This includes the main components of z/OS needed to customize and install the z/OS operating system. This edition has been significantly updated and revised.*

*Demonstrates socket programming fundamentals, including writing servers, creating secure applications, address conversion functions, socket types, and TCP/IP protocols and options  
Programming in TCP/IP can seem deceptively simple. Nonetheless, many network programmers recognize that their applications could be much more robust. Effective TCP/IP Programming is designed*

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*to boost programmers to a higher level of competence by focusing on the protocol suite's more subtle features and techniques. It gives you the know-how you need to produce highly effective TCP/IP programs. In forty-four concise, self-contained lessons, this book offers experience-based tips, practices, and rules of thumb for learning high-performance TCP/IP programming techniques. Moreover, it shows you how to avoid many of TCP/IP's most common trouble spots. Effective TCP/IP Programming offers valuable advice on such topics as: Exploring IP addressing, subnets, and CIDR Preferring the sockets interface over XTI/TLI Using two TCP connections Making your applications event-driven Using one large write instead of multiple small writes Avoiding data copying Understanding what TCP reliability really means Recognizing the effects of buffer sizes Using tcpdump, traceroute, netstat, and ping effectively Numerous examples demonstrate essential ideas and concepts. Skeleton code and a library of common functions allow you to write applications without having to worry about routine chores. Through individual tips and explanations, you will acquire an overall understanding of TCP/IP's inner workings and the practical knowledge needed to put it to work. Using Effective TCP/IP Programming, you'll speed through the learning process and quickly achieve the programming capabilities of a seasoned pro.*

*Remote Control Robotics*

*WebLogic: The Definitive Guide*

*Beej's Guide to Network Programming*

*Linux Socket Programming*

*Interprocess Communications (Paperback)*

*Advanced Programming in the UNIX Environment*

**A text focusing on the methods and alternatives for designed TCP/IP-based client/server systems and advanced techniques for specialized applications with Perl. A guide examining a collection of the best third party modules in the Comprehensive Perl Archive**

**Network. Topics covered: Perl function libraries and techniques that allow programs to interact with resources over a network. IO: Socket library ; Net: FTP library -- Telnet library -- SMTP library ; Chat problems ; Internet Message Access Protocol (IMAP) issues ; Markup-language parsing ; Internet Protocol (IP) broadcasting and multicasting.**

**A comprehensive guide to programming with network sockets, implementing Internet protocols, designing IoT devices, and much more with C Key**

**FeaturesLeverage your C or C++ programming skills to build powerful network applicationsGet to grips with a variety of network protocols that allow you to load web pages, send emails, and do much moreWrite portable network code for operating systems such as Windows, Linux, and macOSBook Description**

**Network programming, a challenging topic in C, is made easy to understand with a careful exposition of socket programming APIs. This book gets you started with modern network programming in C and the right use of relevant operating system APIs. This book covers core concepts, such as hostname resolution with DNS, that are crucial to the functioning of the modern web. You'll delve into the fundamental network protocols, TCP and UDP. Essential techniques for networking paradigms such as client-server and peer-to-peer models are explained with the help of practical examples. You'll also study HTTP and HTTPS (the protocols responsible for web pages) from both the client and server perspective. To keep up with current trends, you'll apply the concepts covered in this book to gain insights into web programming for IoT. You'll even get to grips with network monitoring and implementing security best**

**practices. By the end of this book, you'll have experience of working with client-server applications, and be able to implement new network programs in C. The code in this book is compatible with the older C99 version as well as the latest C18 and C++17 standards. Special consideration is given to writing robust, reliable, and secure code that is portable across operating systems, including Winsock sockets for Windows and POSIX sockets for Linux and macOS. What you will learn**

**Uncover cross-platform socket programming APIs**

**Implement techniques for supporting IPv4 and IPv6**

**Understand how TCP and UDP connections work over IP**

**Discover how hostname resolution and DNS work**

**Interface with web APIs using HTTP and HTTPS**

**Acquire hands-on experience with Simple Mail Transfer Protocol (SMTP)**

**Apply network programming to the Internet of Things (IoT)**

**Who this book is for** If you're a developer or a system administrator who wants to enter the world of network programming, this book is for you. Basic knowledge of C programming is assumed.

**bull; Learn UNIX essentials with a concentration on communication, concurrency, and multithreading techniques**

**bull; Full of ideas on how to design and implement good software along with unique projects throughout**

**bull; Excellent companion to Stevens' Advanced UNIX System Programming**

**Shell Programming in Unix, Linux and OS X is a thoroughly updated revision of Kochan and Wood's classic Unix Shell Programming tutorial. Following the methodology of the original text, the book focuses on the POSIX standard shell, and teaches you how to develop programs in this useful programming environment, taking full advantage of the underlying**

**power of Unix and Unix-like operating systems. After a quick review of Unix utilities, the book's authors take you step-by-step through the process of building shell scripts, debugging them, and understanding how they work within the shell's environment. All major features of the shell are covered, and the large number of practical examples make it easy for you to build shell scripts for your particular applications. The book also describes the major features of the Korn and Bash shells. Learn how to... Take advantage of the many utilities provided in the Unix system Write powerful shell scripts Use the shell's built-in decision-making and looping constructs Use the shell's powerful quoting mechanisms Make the most of the shell's built-in history and command editing capabilities Use regular expressions with Unix commands Take advantage of the special features of the Korn and Bash shells Identify the major differences between versions of the shell language Customize the way your Unix system responds to you Set up your shell environment Make use of functions Debug scripts Contents at a Glance 1 A Quick Review of the Basics 2 What Is the Shell? 3 Tools of the Trade 4 And Away We Go 5 Can I Quote You on That? 6 Passing Arguments 7 Decisions, Decisions 8 'Round and 'Round She Goes 9 Reading and Printing Data 10 Your Environment 11 More on Parameters 12 Loose Ends 13 Rolo Revisited 14 Interactive and Nonstandard Shell Features A Shell Summary B For More Information**

**Unix Shell Programming**  
**TCP/IP Illustrated, Volume 3**

## **Unix Network Programming: The Sockets Networking Api**

Learn socket programming in C and write secure and optimized network code

**BEA's WebLogic Server implements the full range of J2EE technologies, and includes many additional features such as advanced management, clustering, and web services.**

**Widely adopted, it forms the core of the WebLogic platform, providing a stable framework for building scalable, highly available, and secure applications. In fact, in the long list of**

**WebLogic's strengths and features, only one shortcoming stands out: the documentation that comes with the WebLogic server often leaves users clamoring for more information. WebLogic: The Definitive Guide presents a 360-degree view of the world of WebLogic. Providing in-depth coverage of the WebLogic server, the book takes the concept of "definitive" to a whole new level.**

**Exhaustive treatment of the WebLogic server and management console answers any question that developers or administrators might think to ask. Developers will find a useful guide through the world of WebLogic to help them apply their J2EE expertise to build and manage applications. Administrators will discover all they need to manage a WebLogic-based setup. And system architects will appreciate the detailed analysis of the different system architectures supported by WebLogic, the overall organization of a WebLogic**

**domain and supporting network infrastructure, and more. WebLogic: The Definitive Guide is divided into three sections that explore WebLogic and J2EE, Managing the WebLogic Environment, and WebLogic Enterprise APIs. Some of the topics covered in this comprehensive volume include: Building web applications on the WebLogic Server Building and optimizing RMI applications Using EJBs with WebLogic, including CMP entity beans Packaging and deploying applications Understanding WebLogic's support for clustering Performance tuning and related configuration settings Configuring WebLogic's SSL support Maximizing WebLogic's security features Building web services with XML Using WebLogic's JMX services and MBeans Anyone who has struggled with mastering the WebLogic server will appreciate the thorough, clearly written explanations and examples in this book. WebLogic: The Definitive Guide is the definitive documentation for this popular J2EE application server. Shell Programming in Unix, Linux and OS X**