Understanding PKI: Concepts, Standards, And Deployment Considerations (Kaleidoscope)

Access Control, Authentication, and Public Key Infrastructure provides a unique, in-depth look at how access controls protect resouces against unauthorized viewing, tampering, or destruction and serves as a primary means of ensuring privacy, confidentiality, and prevention of unauthorized disclosure. Written by industry experts, this book defines the components of access control, provides a business framework for implementation, and discusses legal requirements that impact access control programs, before looking at the risks, threats, and vulerabilities prevalent in information systems and IT infrastructures and ways of handling them. Using examples and exercises, this book incorporates hands-on activities to prepare readers to successfully put access control systems to work as well as test and manage them. The Jones & Bartlett Learning: Information Systems Security & Assurance Series delivers fundamental IT Security principles packed with real-world applications and examples for IT Security, Cybersecurity, Information Assurance, and Information Systems Security programs, Authored by Certified Information Systems Security Professionals (CISSPs), and reviewed by leading technical experts in the field, these books are current, forward-thinking resources that enable readers to solve the cybersecurity challenges of today and tomorrow.

Get ready to pass the CISSP exam and earn your certification with this advanced test guide Used alone or as an in-depth supplement to the bestselling The CISSP Prep Guide, this book provides you with an even more intensive preparation for the CISSP exam. With the help of more than 300 advanced questions and detailed answers, you'll gain a better understanding of the key concepts associated with the ten domains of the common body of knowledge (CBK). Each question is designed to test you on the information you'll need to know in order to pass the exam. Along with explanations of the answers to these advanced questions, you'll find discussions on some common incorrect responses as well. In addition to serving as an excellent tutorial, this book presents you with the latest developments in information security. It includes new information on: Carnivore, Echelon, and the U.S. Patriot Act The Digital Millennium Copyright Act (DMCA) and recent rulings The European Union Electronic Signature Directive The Advanced Encryption Standard, biometrics, and the Software Capability Maturity Model Genetic algorithms and wireless security models New threats and countermeasures The CD-ROM includes all the questions and answers from the book with the Boson-powered test engine.

This book constitutes the refereed proceedings of the 9th International Conference on the Theory and Application of Cryptology and Information Security, ASIACRYPT 2003, held in Taipei, Taiwan in November/December 2003.The 32 revised full papers presented together with one invited paper were carefully reviewed and selected from 188 submissions. The papers are organized in topical sections on public key cryptography, number theory, efficient implementations, key management and protocols, hash functions, group signatures, block cyphers, broadcast and multicast, foundations and complexity theory, and digital signatures.

Bulletproof SSL and TLS is a complete guide to using SSL and TLS encryption to deploy secure servers and web applications. Written by Ivan Ristic, the author of the popular SSL Labs web site, this book will teach you everything you need to know to protect your systems from eavesdropping and impersonation attacks. In this book, you'll find just the right mix of theory, protocol detail, vulnerability and weakness information, and deployment advice to get your job done: - Comprehensive coverage of the ever-changing field of SSL/TLS and Internet PKI, with updates to the digital version - For IT security professionals, help to understand the risks - For system administrators, help to deploy systems securely - For developers, help to design and implement secure web applications - Practical and concise, with added depth when details are relevant - Introduction to cryptography and the latest TLS protocol version - Discussion of weaknesses at every level, covering implementation issues, HTTP and browser problems, and protocol vulnerabilities - Coverage of the latest attacks, such as BEAST, CRIME, BREACH, Lucky 13, RC4 biases, Triple Handshake Attack, and Heartbleed - Thorough deployment advice, including advanced technologies, such as Strict Transport Security, Content Security Policy, and pinning - Guide to using OpenSSL to generate keys and certificates and to create and run a private certification authority - Guide to using OpenSSL to test servers for vulnerabilities - Practical advice for secure server configuration using Apache httpd, IIS, Java, Nginx, Microsoft Windows, and Tomcat This book is available in paperback and a variety of digital formats without DRM.

AAA and Network Security for Mobile Access

Bulletproof SSL and TLS

Java Security Solutions

IP Multimedia Concepts and Services

Securing Web Services with WS-Security

Develop CASP+ skills and learn all the key topics needed to prepare for the certification exam

The practical, results-focused PKI primer for every security developer and IT manager!-- Easy-to-understand explanations of the key concepts behind PKI and PKIX.-- Answers the most important questions about PKI deployment, operation, and administration.-- Covers trust models, certificate validation, credentials management, key rollover, and much more.The Public Key Infrastructure (PKI) and related standards are gaining powerful momentum as a solution for a wide range of security issues associated with electronic commerce. This book represents the first complete primer on PKI for both technical and non-technical professionals. Unlike academic treatises on PKI, this book is focused on getting results -- and on answering the critical questions implementers and managers have about PKI deployment, operation, and administration. The book begins with an overview of the security problems PKI is intended to solve; the fundamentals of secret key cryptography, and the significant challenges posed by key distribution. Messaoud Benantar introduces the foundations of public key cryptography, and the essential role played by public key assurance systems. Once you understand the basics, he introduces PKIX, the Internet Public Key Infrastructure standard, and shows how to leverage it in constructing secure Internet solutions. Benantar covers PKIX standards, notational language, and data encoding schemes; the Internet PKI technology; PKI trust models; certificate va

Web services are leading to the use of more packaged software either as an internal service or an external service available over the Internet. These services, which will be connected together to create the information technology systems of the future, will require less custom software in our organizations and more creativity in the connections between the services. This book begins with a high-level example of how an average person in an organization might interact with a service-oriented architecture. As the book

progresses, more technical detail is added in a "peeling of the onion" approach. The leadership opportunities within these developing service-oriented architectures are also explained. At the end of the book there is a compendium or "pocket library" for software technology related to service-oriented architectures. · Only web services book to cover both data management and software engineering perspectives, excellent resource for ALL members of IT teams · Jargon free, highly illustrated, with introduction that anyone can read that then leads into increasing technical detail · Provides a set of leadership principles and suggested application for using this technology.

The 3rd edition of this highly successful text builds onthe achievement of the first two editions to provide comprehensivecoverage of IMS. It continues to explore the concepts,architecture, protocols and functionalities of IMS while providinga wealth of new and updated information. It is written in a mannerthat allows readers to choose the level of knowledge andunderstanding they need to gain about the IMS. With 35% new material, The IMS,IP Multimedia Concepts andServices, 3rd Edition has been completely revised toinclude updated chapters as well as totally new chapters on IMSmultimedia telephony and IMS voice call continuity. Additional newmaterial includes IMS transit, IMS local numbering, emergencysessions, identification of communication services in IMS, newauthentication model for fixed access, NAT traversal and globallyroutable user agents URI. Detailed descriptions of protocolbehaviour are provided on a level that can be used forimplementation and testing. Key features of the 3rd edition: Two new chapters on IMS multimedia telephony service and IMSVoice Call Continuity Updated information on Third Generation Partnership Project(3GPP) Release 7 level, including architecture, reference pointsand concepts Substantially extended coverage on IMS detailed procedures Completely rewritten and extended chapters on IMSservices

Architect, engineer, integrate, and implement security across increasingly complex, hybrid enterprise networks Key FeaturesLearn how to apply industry best practices and earn the CASP+ certificationExplore over 400 CASP+ questions to test your understanding of key concepts and help you prepare for the examDiscover over 300 illustrations and diagrams that will assist you in understanding advanced CASP+ conceptsBook Description CompTIA Advanced Security Practitioner (CASP+) ensures that security practitioners stay on top of the ever-changing security landscape. The CompTIA CASP+ CAS-004 Certification Guide offers complete, up-to-date coverage of the CompTIA CAS-004 exam so you can take it with confidence, fully equipped to pass on the first attempt. Written in a clear, succinct way with self-assessment questions, exam tips, and mock exams with detailed explanations, this book covers security architecture, security operations, security engineering, cryptography, governance, risk, and compliance. You'll begin by developing the skills to architect, engineer, integrate, and implement secure solutions across complex environments to support a resilient enterprise. Moving on, you'll discover how to monitor and detect security incidents, implement incident response, and use automation to proactively support ongoing security operations. The book also shows you how to apply security practices in the cloud, on-premises, to endpoints, and to mobile infrastructure. Finally, you'll understand the impact of governance, risk, and compliance requirements throughout the enterprise. By the end of this CASP study guide, you'll have covered everything you need to pass the CompTIA CASP+ CAS-004 certification exam and have a handy reference guide. What you will learnUnderstand Cloud Security Alliance (CSA) and the FedRAMP programsRespond to Advanced Persistent Threats (APT) by deploying hunt teamsUnderstand the Cyber Kill Chain framework as well as MITRE ATT&CK and Diamond ModelsDeploy advanced cryptographic solutions using the latest FIPS standardsUnderstand compliance requirements for GDPR, PCI, DSS, and COPPASecure Internet of Things (IoT), Industrial control systems (ICS), and SCADAPlan for incident response and digital forensics using advanced toolsWho this book is for This CompTIA book is for CASP+ CAS-004 exam candidates who want to achieve CASP+ certification to advance their career. Security architects, senior security engineers, SOC managers, security analysts, IT cybersecurity specialists/INFOSEC specialists, and cyber risk analysts will benefit from this book. Experience in an IT technical role or CompTIA Security+ certification or equivalent is assumed.

Concepts, Technology & Architecture

The Official CompTIA Security+ Self-Paced Study Guide (Exam SY0-601)

SOA Security

CompTIA CASP+ CAS-004 Certification Guide

Secure Electronic Commerce

Building the Infrastructure for Digital Signatures and Encryption

The Practical, Comprehensive Guide to Applying Cybersecurity Best Practices and Standards in Real Environments In Effective Cybersecurity, William Stallings

introduces the technology, operational procedures, and management practices needed for successful cybersecurity. Stallings makes extensive use of standards and best practices documents that are often used to guide or mandate cybersecurity implementation. Going beyond these, he offers in-depth tutorials on the "how" of implementation, integrated into a unified framework and realistic plan of action. Each chapter contains a clear technical overview, as well as a detailed discussion of action items and appropriate policies. Stallings offers many pedagogical features designed to help readers master the material: clear learning objectives, keyword lists, review questions, and QR codes linking to relevant standards documents and web resources. Effective Cybersecurity aligns with the comprehensive Information Security Forum document "The Standard of Good Practice for Information Security," extending ISF's work with extensive insights from ISO, NIST, COBIT, other official standards and guidelines, and modern professional, academic, and industry literature. • Understand the cybersecurity discipline and the role of standards and best practices • Define security governance, assess risks, and manage strategy and tactics • Safeguard information and privacy, and ensure GDPR compliance • Harden systems across the system development life cycle (SDLC) • Protect servers, virtualized systems, and storage • Secure networks and electronic communications, from email to VoIP • Apply the most appropriate methods for user authentication • Mitigate security risks in supply chains and cloud environments This knowledge is indispensable to every cybersecurity professional. Stallings presents it systematically and coherently, making it practical and actionable.

bull; Gain a comprehensive view of network security issues and concepts, then master specific implementations based on your network needs bull; Learn how to use new and legacy Cisco Systems equipment to secure your networks bull; Understand how to design and build security services while also learning the legal and network accessibility impact of those services

Most organizations have a firewall, antivirus software, and intrusion detection systems, all of which are intended to keep attackers out. So why is computer security a bigger problem today than ever before? The answer is simple--bad software lies at the heart of all computer security problems. Traditional solutions simply treat the symptoms, not the problem, and usually do so in a reactive way. This book teaches you how to take a proactive approach to computer security. Building Secure Software cuts to the heart of computer security to help you get security right the first time. If you are serious about computer security, you need to read this book, which includes essential lessons for both security professionals who have come to realize that software is the problem, and software developers who intend to make their code behave. Written for anyone involved in software development and use—from managers to coders—this book is your first step toward building more secure software. Building Secure Software provides expert perspectives and techniques to help you ensure the security of essential software. If you consider threats and vulnerabilities early in the devel-opment cycle you can build security into your system. With this book you will learn how to determine an acceptable level of risk, develop security tests, and plug security holes before software is even shipped. Inside you'll find the ten guiding principles for software security, as well as detailed coverage of: Software risk management for security Selecting technologies to make your code more secure Security implications of open source and proprietary software How to audit software The dreaded buffer overflow Access control and password authentication Random number generation Applying cryptography Trust management and input Client-side security Dealing with firewalls Only by building secure software can you defend yourself against security breaches and gain the confidence that comes with knowing you won't have to play the "penetrate and patch" game anymore. Get it right the first time. Let these expert authors show you how to properly design your system; save time, money, and credibility; and preserve your customers' trust.

* Provides practical solutions, not just principles of security. * Offers an in depth toolkit to the reader and explains how to use the tools to build a secure system. * Introduces concepts of security patterns for designing systems, as well as security building blocks for systems. * Discusses algorithms, cryptography and architecture. * Addresse security for different application servers.

Web Services, Service-Oriented Architectures, and Cloud Computing

Designing Network Security

Digital Signatures for Dummies, Cryptomathic Special Edition (Custom)

Advanced CISSP Prep Guide

The Craft of System Security

Security without Obscurity

Most books on public key infrastructure (PKI) seem to focus on asymmetric cryptography, X.509 certificates, certificate authority (CA) hierarchies, or certificate policy (CP), and certificate practice statements. While algorithms, certificates, and theoretical policy are all excellent discussions, the real-world issues for operating a commercial or

Expanded into two volumes, the Second Edition of Springer's Encyclopedia of Cryptography and Security brings the latest and most comprehensive coverage of the topic: Definitive information on cryptography and information security from highly regarded researchers Effective tool for professionals in many fields and researchers of all levels Extensive resource with more than 700 contributions in Second Edition 5643 references, more than twice the number of references that appear in the First Edition With over 300 new entries, appearing in an A-Z format, the Encyclopedia of Cryptography and Security provides easy, intuitive access to information on all aspects of cryptography and security. As a critical enhancement to the First Edition's base of 464 entries, the information in the Encyclopedia is relevant for researchers and professionals alike. Topics for this comprehensive reference were elected, written, and peer-reviewed by a pool of distinguished researchers in the field. The Second Edition's editorial board now includes 34 scholars, which was expanded from 18 members in the First Edition. Representing the work of researchers from over 30 countries, the Encyclopedia is broad in scope, covering everything from authentication and identification to quantum cryptography and web security. The text's practical style is instructional, yet fosters investigation. Each area presents concepts, designs, and specific implementations. The highly-structured essays in this work include synonyms, a definition and discussion of the topic, bibliographies, and links to related literature. Extensive cross-references to other entries within the Encyclopedia support efficient, user-friendly searches for immediate access to relevant information. Key concepts presented in the Encyclopedia of Cryptography and Security include: Authentication and identification; Block ciphers and stream ciphers; Computational issues; Copy protection; Cryptanalysis and security; Cryptographic protocols; Electronic payment and digital certificates; Elliptic curve cryptography; Factorization algorithms and primality tests; Hash functions and MACs; Historical systems; Identity-based cryptography; Implementation aspects for smart cards and standards; Key management; Multiparty computations like voting schemes; Public key cryptography; Quantum cryptography; Secret sharing schemes; Sequences; Web Security. Topics covered: Data Structures, Cryptography and Information Theory; Data Encryption; Coding and Information Theory; Appl.Mathematics/Computational Methods of Engineering; Applications of Mathematics; Complexity. This authoritative reference will be published in two formats: print and online. The online edition features hyperlinks to cross-references, in addition to significant research.

Public-Key Infrastructure (PKI) is the foundation of the four major elements of digital security: authentication, integrity, confidentiality, and non-repudiation. The idea of a public-key infrastructure has existed for more than a decade, but the need for PKI has intensified over the last few years as the Internet has expanded its reach into business, government,

the legal system, the military, and other areas that depend on secure communications. "Understanding PKI, Second Edition, " is both a guide for software engineers involved in PKI development and a readable resource for technical managers responsible for their organization's security policies and investments. It is a comprehensive primer to the latest in PKI technology and how it is used today. Taking a non-vendor-specific approach, this book explains fundamental concepts, examines emerging standards, and discusses deployment considerations and strategies that effect success. This second edition has been updated throughout to incorporate all of the most recent developments in the PKI field. Two new chapters have been added to address the use of PKI in the real world and to explore the technology's future. This new edition also addresses: The X.509 standardPKI for privacyThe emergence of electronic signatures and accompanying legislationNew PKI initiatives supported by the XML standards bodies In addition to this specific information, the authors lend their informed opinions on how emerging trends will drive the expansion of PKI. 0672323915B10162002

The only complete guide to designing, implementing, and supporting state-of-the-art certificate-based identity solutions with PKI Layered approach is designed to help readers with widely diverse backgrounds quickly learn what they need to know Covers the entire PKI project lifecycle, making complex PKI architectures simple to understand and deploy Brings together theory and practice, including on-the-ground implementers' knowledge, insights, best practices, design choices, and troubleshooting details PKI Uncovered brings together all the techniques IT and security professionals need to apply PKI in any environment, no matter how complex or sophisticated. At the same time, it will help them gain a deep understanding of the foundations of certificate-based identity management. Its layered and modular approach helps readers quickly get the information they need to efficiently plan, design, deploy, manage, or troubleshoot any PKI environment. The authors begin by presenting the foundations of PKI, giving readers the theoretical background they need to understand its mechanisms. Next, they move to high-level design considerations, guiding readers in making the choices most suitable for their own environments. The authors share best practices and experiences drawn from production customer deployments of all types. They organize a series of design "modules" into hierarchical models which are then applied to comprehensive solutions. Readers will be introduced to the use of PKI in multiple environments, including Cisco router-based DMVPN, ASA, and 802.1X. The authors also cover recent innovations such as Cisco GET VPN. Throughout, troubleshooting sections help ensure smooth deployments and give readers an even deeper "under-the-hood" understanding of their implementations.

Advances in Cryptology - ASIACRYPT 2003

Cryptography and Public Key Infrastructure on the Internet

9th International Conference on the Theory and Application of Cryptology and Information Security, Taipei, Taiwan, November 30 - December 4, 2003, Proceedings

Document Drafting Handbook

Understanding and Deploying SSL/TLS and PKI to Secure Servers and Web Applications

Small Business Information Security

"Newcomers will appreciate the clear explanations of the origins and development of secure e-commerce. More experienced developers can move straight to the detailed technical material. Anyone who is involved in e-commerce design, management, or operation will benefit from Secure Electronic Commerce."--BOOK JACKET.

CompTIA Security+ Study Guide (Exam SY0-601)

AAA (Authentication, Authorization, Accounting) describes a framework for intelligently controlling access to network resources, enforcing policies, and providing the information necessary to bill for services. AAA and Network Security for Mobile Access is an invaluable guide to the AAA concepts and framework, including its protocols Diameter and Radius. The authors give an overview of established and emerging standards for the provision of secure network access for mobile users while providing the basic design concepts and motivations. AAA and Network Security for Mobile Access: Covers trust, i.e., authentication and security key management for fixed and mobile users, and various approaches to trust establishment. Discusses public key infrastructures and provides practical tips on certificates management. Introduces Diameter, a state-of-the-art AAA protocol designed to meet today's reliability, security and robustness requirements, and examines Diameter-Mobile IP interactions. Explains RADIUS (Remote Authentication Dial-In User Services) and its latest extensions. Details EAP (Extensible Authentication Protocol) in-depth, giving a protocol overview, and covering EAP-XXX authentication methods as well as use of EAP in 802 networks. Describes IP mobility protocols including IP level mobility management, its security and optimizations, and latest IETF seamless mobility protocols. Includes a chapter describing the details of Mobile IP and AAA interaction, illustrating Diameter Mobile IP applications and the process used in CDMA2000. Contains a section on security and AAA issues to support roaming, discussing a variety of options for operator co-existence, including an overview of Liberty Alliance. This text will provide researchers in academia and industry, network security engineers, managers, developers and planners, as well as graduate students, with an accessible explanation of the standards fundamental to secure mobile access.

You know how to build Web service applications using XML, SOAP, and WSDL, but can you ensure that those applications are secure? Standards development groups such as OASIS and W3C have released several specifications designed to provide security -- but how do you combine them in working applications?

A Reference Model Guided Approach for Common Challenges

Building Smart Contracts and DApps

Exam Q&A

Encyclopedia of Cryptography and Security

Governance, Risk, and Compliance for PKI Operations

Towards Interoperable Research Infrastructures for Environmental and Earth Sciences

For some small businesses, the security of their information, systems, and networks might

not be a high priority, but for their customers, employees, and trading partners it is very important. The size of a small business varies by type of business, but typically is a business or organization with up to 500 employees. In the U.S., the number of small businesses totals to over 95% of all businesses. The small business community produces around 50% of our nation¿s GNP and creates around 50% of all new jobs in our country. Small businesses, therefore, are a very important part of our nation¿s economy. This report will assist small business management to understand how to provide basic security for their information, systems, and networks. Illustrations.

Pragmatically, a PKI is an operational system that employs asymmetric cryptography, information technology, operating rules, physical and logical security, and legal matters. Much like any technology, cryptography in general undergoes changes: sometimes evolutionary, sometimes dramatically, and sometimes unknowingly. This book discusses what not do in PKI operations. Providing a no-nonsense approach and multiple case studies, the book is a straightforward, real-world guide to how to successfully operate a PKI system. Explore business and technical implications Understand established regulatory standards Deploy and manage digital signatures Enable business with digital signatures Digital documents are increasingly commonplace in today's business world, and forward-thinking organizations are deploying digital signatures as a crucial part of their part of their strategy. Businesses are discovering a genuine market demand for digital signatures in support of organizational goals. This book is your guide to the new business environment. It outlines the benefits of embracing digital signature techniques and demystifies the relevant technologies. Advance your organization's digital strategy Provide strong non-repudiation Offer "what you see is what you sign" Ensure enhanced security Provide user convenience and mobility

PART OF THE JONES & BARTLETT LEARNING INFORMATION SYSTEMS SECURITY & ASSURANCE SERIES Revised and updated with the latest data in the field, the Second Edition of Managing Risk in Information Systems provides a comprehensive overview of the SSCP(r) Risk, Response, and Recovery Domain in addition to providing a thorough overview of risk management and its implications on IT infrastructures and compliance. Written by industry experts, and using a wealth of examples and exercises, this book incorporates hands-on activities to walk the reader through the fundamentals of risk management, strategies and approaches for mitigating risk, and the anatomy of how to create a plan that reduces risk. Instructor's Material for Managing Risk in Information Systems include: PowerPoint Lecture Slides Instructor's Guide Course Syllabus Quiz & Exam Questions Case Scenarios/Handouts

Building Secure Software

Cryptography Decrypted

Access Control, Authentication, and Public Key Infrastructure

The Fundamentals

Certificate-Based Security Solutions for Next-Generation Networks

Mastering Ethereum

This glossary provides a central resource of definitions most commonly used in Nat. Institute of Standards and Technology (NIST) information security publications and in the Committee for National Security Systems (CNSS) information assurance publications. Each entry in the glossary points to one or more source NIST publications, and/or CNSSI-4009, and/or supplemental sources where appropriate. This is a print on demand edition of an important, hard-to-find publication.

A clear, comprehensible, and practical guide to the essentials of computer cryptography, from Caesar's Cipher through modern-day public key. Cryptographic capabilities like detecting imposters and stopping eavesdropping are thoroughly illustrated with easy-to-understand analogies, visuals, and historical sidebars. The student needs little or no background in cryptography to read Cryptography Decrypted. Nor does it require technical or mathematical expertise. But for those with some understanding of the subject, this book is comprehensive enough to solidify knowledge of computer cryptography and challenge those who wish to explore the high-level math appendix.

The introduction of public key cryptography (PKC) was a critical advance in IT security. In contrast to symmetric key cryptography, it enables confidential communication between entities in open networks, in particular the Internet, without prior contact. Beyond this PKC also enables protection techniques that have no analogue in traditional cryptography, most importantly digital signatures which for example support Internet security by authenticating software downloads and updates. Although PKC does not require the confidential exchange of secret keys, proper management of the private and public keys used in PKC is still of vital importance: the private keys must remain private, and the public keys must be verifiably authentic. So understanding so-called public key infrastructures (PKIs) that manage key pairs is at least as important as studying the ingenious mathematical ideas underlying PKC. In this book the authors explain the most important concepts underlying PKIs and discuss relevant standards, implementations, and applications. The book is structured into chapters on the motivation for PKI, certificates, trust models, private keys, revocation, validity models, certification service providers, certificate policies, certification paths, and practical aspects of PKI. This is a suitable textbook for advanced undergraduate and graduate courses in computer science, mathematics, engineering, and related disciplines, complementing introductory courses on cryptography. The authors assume only basic computer science prerequisites, and they include exercises in all chapters and solutions in an appendix. They also include detailed pointers to relevant standards and implementation guidelines, so the book is also appropriate for self-study and reference by industrial and academic researchers and practitioners.

Hands-on, practical guide to implementing SSL and TLS protocols for Internet security If you are a network professional who knows C

programming, this practical book is for you. Focused on how to implement Secure Socket Layer (SSL) and Transport Layer Security (TLS), this book guides you through all necessary steps, whether or not you have a working knowledge of cryptography. The book covers SSLv2, TLS 1.0, and TLS 1.2, including implementations of the relevant cryptographic protocols, secure hashing, certificate parsing, certificate generation, and more. Coverage includes: Understanding Internet Security Protecting against Eavesdroppers with Symmetric Cryptography Secure Key Exchange over an Insecure Medium with Public Key Cryptography Authenticating Communications Using Digital Signatures Creating a Network of Trust Using X.509 Certificates A Usable, Secure Communications Protocol: Client-Side TLS Adding Server-Side TLS 1.0 Support Advanced SSL Topics Adding TLS 1.2 Support to Your TLS Library Other Applications of SSL A Binary Representation of Integers: A Primer Installing TCPDump and OpenSSL Understanding the Pitfalls of SSLv2 Set up and launch a working implementation of SSL with this practical guide.

Demystifying WS-Security, WS-Policy, SAML, XML Signature, and XML Encryption

Cyber Security and IT Infrastructure Protection

A Guide to PKI Operations

Effective Cybersecurity

Managing Risk in Information Systems

Introduction to the Public Key Infrastructure for the Internet

SOA is one of the latest technologies enterprises are using to tame their software costs - in development, deployment, and management. SOA makes integration easy, helping enterprises not only better utilize their existing investments in applications and infrastructure, but also open up new business opportunities. However, one of the big stumbling blocks in executing SOA is security. This book addresses Security in SOA with detailed examples illustrating the theory, industry standards and best practices. It is true that security is important in any system. SOA brings in additional security concerns as well rising out of the very openness that makes it attractive. If we apply security principles blindly, we shut ourselves of the benefits of SOA. Therefore, we need to understand which security models and techniques are right for SOA. This book provides such an understanding. Usually, security is seen as an esoteric topic that is better left to experts. While it is true that security requires expert attention, everybody, including software developers, designers, architects, IT administrators and managers need to do tasks that require very good understanding of security topics. Fortunately, traditional security techniques have been around long enough for people to understand and apply them in practice. This, however, is not the case with SOA Security. Anyone seeking to implement SOA Security is today forced to dig through a maze of inter-dependent specifications and API docs that assume a lot of prior experience on the part of readers. Getting started on a project is hence proving to be a huge challenge to practitioners. This book seeks to change that. It provides bottom-up understanding of security techniques appropriate for use in SOA without assuming any prior familiarity with security topics on the part of the reader. Unlike most other books about SOA that merely describe the standards, this book helps you get started immediately by walking you through sample code that illustrates how real life problems can be solved using the techniques and best practices described in standards. Whereas standards discuss all possible variations of each security technique, this book focusses on the 20% of variations that are used 80% of the time. This keeps the material covered in the book simple as well as self-sufficient for all readers except the most advanced. Purchase of the print book comes with an offer of a free PDF, ePub, and Kindle eBook from Manning. Also available is all code from the book.
This book serves as a security practitioner ' s guide to today ' s most crucial issues in cyber security and IT infrastructure. It offers in-depth coverage of theory, technology, and practice as they relate to established technologies as well as recent advancements. It explores practical solutions to a wide range of cyber-physical and IT infrastructure protection issues. Composed of 11 chapters contributed by leading experts in their fields, this highly useful book covers disaster recovery, biometrics, homeland security, cyber warfare, cyber security, national infrastructure security, access controls, vulnerability assessments and audits, cryptography, and operational and organizational security, as well as an extensive glossary of security terms and acronyms. Written with instructors and students in mind, this book includes methods of analysis and problem-solving techniques through hands-on exercises and worked examples as well as questions and answers and the ability to implement practical solutions through real-life case studies. For example, the new format includes the following pedagogical elements: • Checklists throughout each chapter to gauge understanding • Chapter Review Questions/Exercises and Case Studies • Ancillaries: Solutions Manual; slide package; figure files This format will be attractive to universities and career schools as well as federal and state agencies, corporate security training programs, ASIS certification, etc. Chapters by leaders in the field on theory and practice of cyber security and IT infrastructure protection, allowing the reader to develop a new level of technical expertise Comprehensive and up-to-date coverage of cyber security issues allows the reader to remain current and fully informed from multiple viewpoints Presents methods of analysis and problem-solving techniques, enhancing the reader's grasp of the material and ability to implement practical solutions

Explores cloud computing, breaking down the concepts, models, mechanisms, and architectures of this technology while allowing for the financial assessment of resources and how they compare to traditional storage systems.

Written by the experts at RSA Security, this book will show you how to secure transactions and develop customer trust in e-commerce through the use of PKI technology. Part of the RSA Press Series.

Cloud Computing

A Guide to Using Best Practices and Standards

PKI: Implementing & Managing E-Security

DICOM Structured Reporting

Introduction to Public Key Infrastructures

Glossary of Key Information Security Terms

Introduces the concepts of public key infrastructure design and policy and discusses use of the technology for computer network security in the business environment.

A practical guide to Cryptography and its use in the Internet and other communication networks. This overview takes the reader through basic issues and on to more advanced concepts, to cover all levels of interest. Coverage includes all key mathematical concepts, standardisation, authentication, elliptic curve cryptography, and algorithm modes and protocols (including SSL, TLS, IPSec, SMIME, & PGP protocols). * Details what the risks on the internet are and how cryptography can help * Includes a chapter on interception which is unique amongst competing

books in this field * Explains Public Key Infrastructures (PKIs) - currently the most important issue when using cryptography in a large organisation * Includes up-to-date referencing of people, organisations, books and Web sites and the latest information about recent acts and standards affecting encryption practice * Tackles the practical issues such as the difference between SSL and IPSec, which companies are active on the market and where to get further information

"I believe The Craft of System Security is one of the best software security books on the market today. It has not only breadth, but depth, covering topics ranging from cryptography, networking, and operating systems--to the Web, computer-human interaction, and how to improve the security of software systems by improving hardware. Bottom line, this book should be required reading for all who plan to call themselves security practitioners, and an invaluable part of every university's computer science curriculum." --Edward Bonver, CISSP, Senior Software QA Engineer, Product Security, Symantec Corporation "Here's to a fun, exciting read: a unique book chock-full of practical examples of the uses and the misuses of computer security. I expect that it will motivate a good number of college students to want to learn more about the field, at the same time that it will satisfy the more experienced professional." --L. Felipe Perrone, Department of Computer Science, Bucknell University Whether you're a security practitioner, developer, manager, or administrator, this book will give you the deep understanding necessary to meet today's security challenges--and anticipate tomorrow's. Unlike most books, The Craft of System Security doesn't just review the modern security practitioner's toolkit: It explains why each tool exists, and discusses how to use it to solve real problems. After quickly reviewing the history of computer security, the authors move on to discuss the modern landscape, showing how security challenges and responses have evolved, and offering a coherent framework for understanding today's systems and vulnerabilities. Next, they systematically introduce the basic building blocks for securing contemporary systems, apply those building blocks to today's applications, and consider important emerging trends such as hardware-based security. After reading this book, you will be able to Understand the classic Orange Book approach to security, and its limitations Use operating system security tools and structures--with examples from Windows, Linux, BSD, and Solaris Learn how networking, the Web, and wireless technologies affect security Identify software security defects, from buffer overflows to development process flaws Understand cryptographic primitives and their use in secure systems Use best practice techniques for authenticating people and computer systems in diverse settings Use validation, standards, and testing to enhance confidence in a system's security Discover the security, privacy, and trust issues arising from desktop productivity tools Understand digital rights management, watermarking, information hiding, and policy expression Learn principles of human-computer interaction (HCI) design for improved security Understand the potential of emerging work in hardware-based security and trusted computing

Ethereum represents the gateway to a worldwide, decentralized computing paradigm. This platform enables you to run decentralized applications (DApps) and smart contracts that have no central points of failure or control, integrate with a payment network, and operate on an open blockchain. With this practical guide, Andreas M. Antonopoulos and Gavin Wood provide everything you need to know about building smart contracts and DApps on Ethereum and other virtual-machine blockchains. Discover why IBM, Microsoft, NASDAQ, and hundreds of other organizations are experimenting with Ethereum. This essential guide shows you how to develop the skills necessary to be an innovator in this growing and exciting new industry. Run an Ethereum client, create and transmit basic transactions, and program smart contracts Learn the essentials of public key cryptography, hashes, and digital signatures Understand how "wallets" hold digital keys that control funds and smart contracts Interact with Ethereum clients programmatically using JavaScript libraries and Remote Procedure Call interfaces Learn security best practices, design patterns, and anti-patterns with real-world examples Create tokens that represent assets, shares, votes, or access control rights Build decentralized applications using multiple peer-to-peer (P2P) components

The IMS

Solving HIPAA, E-Paper Act, and Other Compliance Issues

Radius, Diameter, EAP, PKI and IP Mobility

How to Avoid Security Problems the Right Way

Implementing SSL / TLS Using Cryptography and PKI

Concepts, Standards, and Deployment Considerations

This open access book summarises the latest developments on data management in the EU H2020 ENVRIplus project, which brought together more than 20 environmental and Earth science research infrastructures into a single community. It provides readers with a systematic overview of the common challenges faced by research infrastructures and how a 'reference model guided engineering approach can be used to achieve greater interoperability among such infrastructures in the environmental and Earth sciences. The 20 contributions in this book are structured in 5 parts on the design, development, deployment, operation and use of research infrastructures. Part one provides an overview of the state of the art of research infrastructure and relevant e-Infrastructure technologies, part two discusses the reference model guided engineering approach, the third part presents the software and tools developed for common data management challenges, the fourth part demonstrates the software via several use cases, and the last part discusses the sustainability and future directions.

PKI Uncovered

PKI Security Solutions for the Enterprise

Understanding PKI