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Autore	Kizza Joseph Migga
Titolo	Guide to Computer Network Security [[electronic resource] /] / by Joseph Migga Kizza
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Descrizione fisica	1 online resource (599 pages)
Collana	Texts in Computer Science, , 1868-0941
Disciplina	005.8
Soggetti	Information storage and retrieval Data structures (Computer science) Management information systems Computer science Computer communication systems Information Storage and Retrieval Data Storage Representation Management of Computing and Information Systems Computer Communication Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Part I: Introduction to Traditional Computer Network Security -- Computer Network Fundamentals -- Computer Network Security Fundamentals -- Part II: Security Issues and Challenges in the Traditional Computer Network -- Security Threats and Threat Motives to Computer Networks -- Introduction to Computer Network Vulnerabilities -- Cyber Crimes and Hackers -- Scripting and Security in Computer Networks and Web Browsers -- Security Assessment, Analysis, and Assurance -- Part III: Dealing with Computer Network Security Challenges -- Disaster Management -- Access Control and Authorization -- Authentication Control and Authorization -- Authentication -- Cryptography -- Firewalls -- System Intrusion Detection and Prevention -- Computer and Network Forensics -- Virus and Content Filtering -- Standardization and Security Criteria: Security Evaluation of Computer Products -- Computer Network Security

Protocols -- Security in Wireless Networks and Devices -- Security in Sensor Networks -- Other Efforts to Secure Data in Computer Networks and Beyond -- Part IV: The Emergence of the Digital and Social Network Ecosystem -- The Elastic Extension of the Traditional Computer Network Through Virtualization, Cloud Computing and Mobile Technologies -- Virtualization Technology and Security -- Cloud Computing Technology and Security -- Mobile Systems and Corresponding Intractable Security Issues -- Internet of Things (IoT): Growth, Challenges, and Security -- Blockchains, Cryptocurrency, and Smart Contracts Technology: Security Considerations -- Part V: Securing the Last Frontiers -- The Home Front -- Conquering the Last Frontier in the Digital Invasion: The Home Front -- Part VI: Hands-On Projects -- Projects.

Sommario/riassunto

This timely textbook presents a comprehensive guide to the core topics in cybersecurity, covering issues of security that extend beyond traditional computer networks to the ubiquitous mobile communications and online social networks that have become part of our daily lives. In the context of our growing dependence on an ever-changing digital ecosystem, this book stresses the importance of security awareness, whether in our homes, our businesses, or our public spaces. This fully updated new edition features new material on the security issues raised by blockchain technology, and its use in logistics, digital ledgers, payments systems, and digital contracts. Topics and features: Explores the full range of security risks and vulnerabilities in all connected digital systems Inspires debate over future developments and improvements necessary to enhance the security of personal, public, and private enterprise systems Raises thought-provoking questions regarding legislative, legal, social, technical, and ethical challenges, such as the tension between privacy and security Describes the fundamentals of traditional computer network security, and common threats to security Reviews the current landscape of tools, algorithms, and professional best practices in use to maintain security of digital systems Discusses the security issues introduced by the latest generation of network technologies, including mobile systems, cloud computing, and blockchain Presents exercises of varying levels of difficulty at the end of each chapter, and concludes with a diverse selection of practical projects Offers supplementary material for students and instructors at an associated website, including slides, additional projects, and syllabus suggestions This important textbook/reference is an invaluable resource for students of computer science, engineering, and information management, as well as for practitioners working in data- and information-intensive industries.
