

1. Record Nr.	UNINA9911019482303321
Autore	Stamp Mark
Titolo	Information security : principles and practice // Mark Stamp
Pubbl/distr/stampa	Hoboken, NJ, : Wiley, c2011
ISBN	1-283-13887-5 9786613138873 1-118-02796-5 1-118-02797-3 1-118-02795-7
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (608 p.)
Classificazione	COM053000
Disciplina	005.8
Soggetti	Computer security Data protection
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 531-571) and index.
Nota di contenuto	Information Security: Principles and Practice; Contents; Preface; About The Author; Acknowledgments; 1 Introduction; 1.1 The Cast of Characters; 1.2 Alice's Online Bank; 1.2.1 Confidentiality, Integrity, and Availability; 1.2.2 Beyond CIA; 1.3 About This Book; 1.3.1 Cryptography; 1.3.2 Access Control; 1.3.3 Protocols; 1.3.4 Software; 1.4 The People Problem; 1.5 Principles and Practice; 1.6 Problems; I Crypto; 2 Crypto Basics; 2.1 Introduction; 2.2 How to Speak Crypto; 2.3 Classic Crypto; 2.3.1 Simple Substitution Cipher; 2.3.2 Cryptanalysis of a Simple Substitution; 2.3.3 Definition of Secure 2.3.4 Double Transposition Cipher2.3.5 One-Time Pad; 2.3.6 Project VENONA; 2.3.7 Codebook Cipher; 2.3.8 Ciphers of the Election of 1876; 2.4 Modern Crypto History; 2.5 A Taxonomy of Cryptography; 2.6 A Taxonomy of Cryptanalysis; 2.7 Summary; 2.8 Problems; 3 Symmetric Key Crypto; 3.1 Introduction; 3.2 Stream Ciphers; 3.2.1 A5/1; 3.2.2 RC4; 3.3 Block Ciphers; 3.3.1 Feistel Cipher; 3.3.2 DES; 3.3.3 Triple DES; 3.3.4 AES; 3.3.5 Three More Block Ciphers; 3.3.6 TEA; 3.3.7 Block Cipher Modes; 3.4 Integrity; 3.5 Summary; 3.6 Problems; 4 Public Key Crypto; 4.1 Introduction; 4.2 Knapsack; 4.3 RSA 4.3.1 Textbook RSA Example4.3.2 Repeated Squaring; 4.3.3 Speeding

Up RSA; 4.4 Diffie-Hellman; 4.5 Elliptic Curve Cryptography; 4.5.1 Elliptic Curve Math; 4.5.2 ECC Diffie-Hellman; 4.5.3 Realistic Elliptic Curve Example; 4.6 Public Key Notation; 4.7 Uses for Public Key Crypto; 4.7.1 Confidentiality in the Real World; 4.7.2 Signatures and Non-repudiation; 4.7.3 Confidentiality and Non-repudiation; 4.8 Public Key Infrastructure; 4.9 Summary; 4.10 Problems; 5 Hash Functions++; 5.1 Introduction; 5.2 What is a Cryptographic Hash Function?; 5.3 The Birthday Problem; 5.4 A Birthday Attack  
5.5 Non-Cryptographic Hashes5.6 Tiger Hash; 5.7 HMAC; 5.8 Uses for Hash Functions; 5.8.1 Online Bids; 5.8.2 Spam Reduction; 5.9 Miscellaneous Crypto-Related Topics; 5.9.1 Secret Sharing; 5.9.2 Random Numbers; 5.9.3 Information Hiding; 5.10 Summary; 5.11 Problems; 6 Advanced Cryptanalysis; 6.1 Introduction; 6.2 Enigma; 6.2.1 Enigma Cipher Machine; 6.2.2 Enigma Keyspace; 6.2.3 Rotors; 6.2.4 Enigma Attack; 6.3 RC4 as Used in WEP; 6.3.1 RC4 Algorithm; 6.3.2 RC4 Cryptanalytic Attack; 6.3.3 Preventing Attacks on RC4; 6.4 Linear and Differential Cryptanalysis; 6.4.1 Quick Review of DES 6.4.2 Overview of Differential Cryptanalysis6.4.3 Overview of Linear Cryptanalysis; 6.4.4 Tiny DES; 6.4.5 Differential Cryptanalysis of TDES; 6.4.6 Linear Cryptanalysis of TDES; 6.4.7 Implications Block Cipher Design; 6.5 Lattice Reduction and the Knapsack; 6.6 RSA Timing Attacks; 6.6.1 A Simple Timing Attack; 6.6.2 Kocher's Timing Attack; 6.7 Summary; 6.8 Problems; II Access Control; 7 Authentication; 7.1 Introduction; 7.2 Authentication Methods; 7.3 Passwords; 7.3.1 Keys Versus Passwords; 7.3.2 Choosing Passwords; 7.3.3 Attacking Systems via Passwords; 7.3.4 Password Verification  
7.3.5 Math of Password Cracking

---

## Sommario/riassunto

Now updated-your expert guide to twenty-first century information security Information security is a rapidly evolving field. As businesses and consumers become increasingly dependent on complex multinational information systems, it is more imperative than ever to protect the confidentiality and integrity of data. Featuring a wide array of new information on the most current security issues, this fully updated and revised edition of Information Security: Principles and Practice provides the skills and knowledge readers need to tackle any information security challenge. Taking a pract

---