

1. Record Nr.	UNINA9910791090203321
Titolo	Communications and information infrastructure security // edited by John G. Voeller
Pubbl/distr/stampa	Hoboken, New Jersey : , : John Wiley & Sons, , 2014 ©2014
ISBN	1-118-65183-9 1-118-65170-7
Descrizione fisica	1 online resource (124 p.)
Altri autori (Persone)	VoellerJohn G
Disciplina	005.8
Soggetti	Computer networks - Security measures
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 and index.
Nota di contenuto	Cover; Title Page; Contents; Preface; Chapter 1 Telecommunication: Critical Infrastructure Protection; 1.1 Introduction; 1.2 Overview; 1.3 Evolutionary Forces That Shape the Sector; 1.3.1 Unregulated Beginnings; 1.3.2 The Telecom War; 1.3.3 Regulatory Period; 1.7.1 The Hubs: Telecom Hotels; 1.3.4 Deregulated Oligopolies; 1.4 Major Components of the Sector; 1.5 Resiliency of Networks; 1.5.1 Hubs, Clusters, and Betweeners; 1.5.2 Betweenness; 1.6 Resilience Results; 1.6.1 Cascade Resiliency; 1.6.2 Flow Resiliency; 1.7 Telecommunications Criticality; 1.7.2 Self-Organized Criticality 1.8 Final AnalysisReferences; Further Reading; Chapter 2 Strategies for Protecting the Telecommunications Sector; 2.1 Introduction; 2.2 Background; 2.2.1 A Historical Perspective; 2.2.2 What Makes Up The Telecommunications Sector?; 2.2.3 How Do We Secure the Telecommunications Sector?; 2.2.4 What are Critical Telecommunications Infrastructure Systems and Assets?; 2.2.5 What is the U.S. Policy on Protecting National Critical Telecommunications Services and Computer-Driven Systems?; 2.3 Threats, Challenges, and Continuous Improvement; 2.3.1 The General Threat Assessment 2.3.2 The Threat to America's Telecommunications Components2.3.3 The Threat to America's Internet Networks; 2.4 Telecommunications Challenges and Continuous Improvement; 2.5 Conclusions; 2.5.1 Performance, Reliability and Efficiency; 2.5.2 The Threat to America's

Telecommunications Sector; 2.5.3 Future Research Direction; 2.5.4 The Prospects for the Future; References; Further Reading; Chapter 3 Wireless Security; 3.1 Scientific Overview; 3.1.1 Voice-Centric Networks; 3.1.2 Data-Centric Networks; 3.2 Mobile and Wireless Security Landscape; 3.2.1 Federal Legislation and Regulation 3.2.2 Federal Standards and Guidance Publications 3.2.3 Industry Standards and Guidance Organizations; 3.2.4 Governmental Wireless Communications Initiatives; 3.3 Critical Needs Analysis; 3.3.1 Intrusion Prevention Systems; 3.3.2 Internet-Based Security Protocols; 3.4 Research Directions; 3.4.1 Intrusion Prevention Systems; 3.4.2 Internet-Based Security Protocols; 3.4.3 Overlaying Security Services over IP-based Access Networks; 3.4.4 Mobile Device Security; References; Further Reading; Chapter 4 Detection of Hidden Information, Covert Channels and Information Flows; 4.1 Introduction 4.2 Scientific Overview 4.2.1 Hiding Information; 4.3 Countermeasures; 4.3.1 Countermeasures: Detection; 4.3.2 Countermeasures: Disruption; 4.4 Research and Development Trends; 4.4.1 Research Trends; 4.4.2 Development Trends; 4.5 Critical Needs Analysis; 4.6 Research Directions; References; Further Reading; Other Suggested Reading; Chapter 5 Inherently Secure Next-Generation Computing and Communication Networks for Reducing Cascading Impacts; 5.1 Introduction; 5.2 Standards, Guidelines, and Best Practices; 5.3 Standards; 5.3.1 Guidelines; 5.4 Best Practice 5.4.1 Cyber and Control Systems Security Standards in Common Use

Sommario/riassunto

Communication and Information Systems Security features articles from the Wiley Handbook of Science and Technology for Homeland Security covering strategies for protecting the telecommunications sector, wireless security, advanced web based technology for emergency situations. Science and technology for critical infrastructure consequence mitigation are also discussed.
