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Titolo	SCION: A Secure Internet Architecture // by Adrian Perrig, Pawel Szalachowski, Raphael M. Reischuk, Laurent Chuat
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2017
ISBN	3-319-67080-8
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XX, 432 p. 120 illus., 78 illus. in color.)
Collana	Information Security and Cryptography, , 1619-7100
Disciplina	004.6
Soggetti	Data structures (Computer science) Computers Computer organization System safety Data Structures and Information Theory Information Systems and Communication Service Computer Systems Organization and Communication Networks Security Science and Technology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Part I: SCION Overview -- Introduction -- Isolation Domains -- Part II: SCION Details -- Network Control Plane -- Network Data Plane -- Authentication -- ISD Coordination -- Name Resolution -- Part III: Analysis and Evaluation -- Security Analysis -- Modeling Energy Consumption of a SCION-Enabled Network -- Part IV: Deployment and Operation -- Deployment -- Operation -- Part V: Low-Level Details -- Packet Formats -- Configuration File Formats -- Cryptographic Algorithms -- Border Router.
Sommario/riassunto	This book describes the essential components of the SCION secure Internet architecture, the first architecture designed foremost for strong security and high availability. Among its core features, SCION also provides route control, explicit trust information, multipath communication, scalable quality-of-service guarantees, and efficient forwarding. The book includes functional specifications of the network elements, communication protocols among these elements, data

structures, and configuration files. In particular, the book offers a specification of a working prototype. The authors provide a comprehensive description of the main design features for achieving a secure Internet architecture. They facilitate the reader throughout, structuring the book so that the technical detail gradually increases, and supporting the text with a glossary, an index, a list of abbreviations, answers to frequently asked questions, and special highlighting for examples and for sections that explain important research, engineering, and deployment features. The book is suitable for researchers, practitioners, and graduate students who are interested in network security.
