1. Record Nr. UNINA9910583357003321 Autore Zhang Zonghua Titolo Security in network functions virtualization / / Zonghua Zhang, Ahmed Meddahi London, England;; Oxford, England:,: ISTE Press:,: Elsevier,, 2017 Pubbl/distr/stampa ©2017 **ISBN** 0-08-102371-5 1-78548-257-2 Descrizione fisica 1 online resource (251 pages): color illustrations, tables, graphs Disciplina 005.8 Soggetti Computer networks - Security measures Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di bibliografia Includes bibliographical references and index Introduction -- NFV management and orchestration -- Use case driven Nota di contenuto security threat analysis -- NFV-based security management -- Identity and access management in NFV -- Intrusion prevention and detection in NFV -- Network isolation -- Data protection in NFV -- Conclusion Sommario/riassunto The software and networking industry is experiencing a rapid development and deployment of Network Functions Visualization (NFV) technology, in both enterprise and cloud data center networks. One of the primary reasons for this technological trend is that NFV has the capability to reduce CAPEX and OPEX, whilst increasing networking service efficiency, performance, agility, scalability, and resource utilization. Despite such well-recognized benefits, security remains a major concern of network service providers and seriously impedes the further expansion of NFV. This book is therefore dedicated to investigating and exploring the potential security issues of NFV. It contains three major elements: a thorough overview of the NFV framework and architecture, a comprehensive threat analysis aiming to establish a layer-specific threat taxonomy for NFV enabled networking services, and a series of comparative studies of security best practices in traditional networking scenarios and in NFV, ultimately leading to a set of recommendations on security countermeasures in NFV. This

book is primarily intended for engineers, engineering students and

researchers and those with an interest in the field of networks and telecommunications (architectures, protocols, services) in general, and particularly software-defined network (SDN) and network functions virtualization (NFV)-based security services